

LITERATURE OF MANUFACTURERS

Catalogues, bulletins and other direct advertising material recently issued.

Manufacturers are requested to send copies of new trade literature promptly to Electric Refrigeration News.

Fisher

Fisher electric refrigerators and water coolers, manufactured by the Universal Automatic Burner, Ltd., 1832 St. Catherine Street West, Montreal, Canada, are illustrated in a folder issued recently. Seven refrigerator models, A-B-LP9 or P9-F-H-1048 and E, and two water cooler models, C581 and C511, are shown in the folders.

Gem

Recipes to be used with the Gem Electric Kitchen Mechanic, manufactured by the Gem Appliances, Inc., 280 Madison Ave., New York, N. Y., are given in a small folder. Prices of extra attachments for use with the Kitchen Mechanic are also listed in the folder.

Glenn

Leaflets describing four new Dairy Icer models have been distributed by the Dairy Refrigeration Co., 311 Sixty-Fourth Ave., Milwaukee, Wis. The four icers include models B and C for wet installations, C dry installation and M-B dry installation for bottled milk. The Glenn model M-B, for cooling bottled milk, is designed for small dairies for aerator cooling and storage of bottled milk in cases.

Reproductions

Because electric refrigerator dealers often use food displays to advertise their units, and because actual food cannot be kept on extended display without spoiling, the Reproductions Co., 311-315 Centre St., Jamaica Plain, Mass., is offering food reproductions for this purpose. A list of reproductions, including fruits, meats, ice creams, vegetables and dairy products, is given in a small booklet.

Seeger

Two attractive folders devoted to domestic and commercial cabinets have been issued by the Seeger Refrigerator Co., St. Paul, Minn. The folder illustrating the new domestic models in the Seeger line shows sixteen cabinets with food capacities from 4.45 to 40.75 cu. ft. Eleven of the models are of all porcelain construction. The De Luxe line is equipped with a tank for cooling drinking water and an electric light which illuminates the interiors of the cabinets.

In the commercial line, twenty-four refrigerators are available. Twelve are of all porcelain construction, while the remaining cabinets have exteriors of lacquer and interiors of galvanized steel. Hardware, consisting of hinges and roller type locks, is chromium plated.

Steel and Tubes

A thin-wall steel conduit for electric wiring is described in a small booklet issued by the Electric Division, Steel and Tubes, Inc., Cleveland, Ohio. This new conduit is especially adapted to the purpose of protecting copper tubing as well as the wiring in electric refrigeration installations.

HARVISON NOW FRIGIDAIRE BRANCH MANAGER

Denver, Colo.—H. L. Harvison has been appointed branch manager of the Frigidaire Sales Corp. here, succeeding N. B. Acers. Mr. Harvison's territory will include Colorado, half of New Mexico and half of Wyoming. He was formerly in the general sales department of the company at Dayton, Ohio.

Rivals in Sweetness



THAT the public is ready to accept quick frozen foods is clearly indicated by the popularity of the frozen products already kept in stock in many stores. Frozen fruit have found a ready sale and the customer can choose from several brands. The young ladies in the accompanying photograph are proponents of two competing brands of frozen strawberries packed in containers of

different shapes and bearing brightly colored labels.

Both boxes are made of waxed cardboard, which gives them a parchment-like quality, and which is effective in keeping the fruit in good condition. The covers carry instructions for thawing, in the event that the berries are still frozen hard when the time comes to prepare them for the table.

REQUESTS FOR INFORMATION

Readers who can assist in furnishing correct answers to inquiries, or who can supply additional information, are invited to address Electric Refrigeration News, referring to the query number.

Parts

Query No. 351—"Can you furnish us with the name of some firm handling parts of various well known makes of domestic and commercial refrigeration?"

Reply to Previous Query

Query No. 340—Robert McKnight, director of the National Association of Ice Industries, Chicago, Ill., states: "The tons of ice sold in 1929 just about equal the tons sold in 1928, i. e., 60,000,000. In some parts of the country the volume was far greater, in others it was considerably less. The variation was due to the weather conditions, though, naturally, management played its part. 'Well-managed ice companies, vigorously advertising and merchandising, are forging ahead. There is no sound basis for belief that the ice industry as a whole is retrogressing; rather—it is serving more customers and serving them more efficiently than ever before.'"

LUNDQUIST TO SAIL FOR SOUTH AFRICA

Detroit, Mich.—R. C. Lundquist, export manager of Kelvinator Corp., who is now in Rio de Janeiro, Brazil, South America, will sail for South Africa, Feb. 23. He will return to this country in the late spring.

Subscription Order

ELECTRIC REFRIGERATION NEWS
550 MACCABEES BUILDING, DETROIT, MICH.

Please enter subscription to Electric Refrigeration News.

United States and Possessions:

☐ \$2.00 per year. ☐ Three years for \$5.00

All other Countries:

☐ \$2.25 per year. ☐ Two years for \$4.00

I am enclosing payment in the form of

☐ Check ☐ P. O. Order ☐ Cash

Name _____

Street Address _____

City and State _____

Remarks: _____

COPELAND DISTRIBUTOR AUGMENTS SALES STAFF

Boston, Mass.—Northeastern Radio, Inc., distributor for Copeland in Maine, New Hampshire, Vermont, Rhode Island and eastern Massachusetts, recently made several new appointments within its organization. E. E. Safford, formerly with Kelvinator, has been made manager of the commercial department. Mr. Safford has had extensive experience in commercial refrigeration, both in New England and Middle West territory.

S. A. Goodrum, who has been connected with Northeastern for the past few months, has been made field sales manager of the company. Mr. Goodrum, before joining the local concern, was connected with Frigidaire.

Maurice Atlas, who has been with the Copeland organization in the Chicago and Milwaukee territories for the past few years, has been appointed district sales manager for metropolitan Boston.

HOWARD JOINS N. E. M. A. HEADQUARTERS STAFF

New York, N. Y.—Thomas W. Howard, formerly of the Chamber of Commerce of the United States, on February 1 joined the headquarters' staff of the National Electrical Manufacturers' Association as Director of Uniform Cost Accounting.

During the last seven years in the U. S. Chamber of Commerce, as assistant manager of the Department of Manufacture, he was in charge of the activities in the field of uniform cost accounting. Mr. Howard graduated from Worcester Polytechnic Institute in 1907 with the degree of Bachelor of Science. For four years he was with the operating department of the American Telephone and Telegraph Company in Chicago. He was for five years assistant to the general manager of the National Association of Farm Equipment Manufacturers, for two years supervisor of production of the Northern Electric Company, and for three years with Arthur Young & Company, certified public accountants, and with Griffenhagen and Associates, Ltd.

FROZEN MEAT EXHIBIT AROUSES INTEREST

Spokane, Wash.—Electro-Kold dealers recently co-operated with Swift & Co., Portland, Ore., on frozen meat demonstrations at the Wool Growers' convention, held at Walla Walla, Wash., Jan. 13 and 14, at The Dalles, Ore., Jan. 16 and 17, and at Helena, Mont., Jan. 22 and 23.

The equipment supplied by Electro-Kold Corp. was constructed especially for these demonstrations and consisted of a special showcase equipped with new type frost units for maintaining temperatures of 20 degrees within the showcase for the preservation of frozen meats which Swift & Co. are introducing. These demonstrations aroused considerable interest in cities mentioned above.

SEATTLE DEALERS SOLD 5,000 UNITS IN 1929

Seattle, Wash.—Local electric refrigerator sales during 1929 eclipsed all former records, a survey of distributors in Seattle reveals. An approximate total of 5,000 units were sold through local dealers. This virtually doubles sales of former years.

IMPROVES WITH AGE

The News contains a great deal of useful information and I believe that it will be very valuable for reference purposes in years to come. The News is another case which I would say, "improves with age."—J. Ralph Fehr, Patent Dept., Frigidaire Corp., Dayton.

COLOR SCHEME MATCHES FLORIST COOLER

Birmingham, Ala.—The Martin Floral Co. was recently equipped with a Randall florist box, a model R-10 Kelvinator condensing unit and three X-5-50 Kelvinator coils.

The florist box is made of birdseye maple and finished in black, both inside and out. It is 16 ft. long, 10 ft. high and 4 ft. wide. The front of the box is composed of 10 ft. of double plate glass. The all-black finish adds to the color of the flowers on display.

The Kelvinator condensing unit was installed outside the flower shop, in a small house that was especially constructed for it.

The Martin Floral Co. has finished the interior of its store to match the cooler in the black color scheme, and has arranged the lighting to emphasize the new equipment.

NEW QUARTERS OPENED BY DENVER CO.

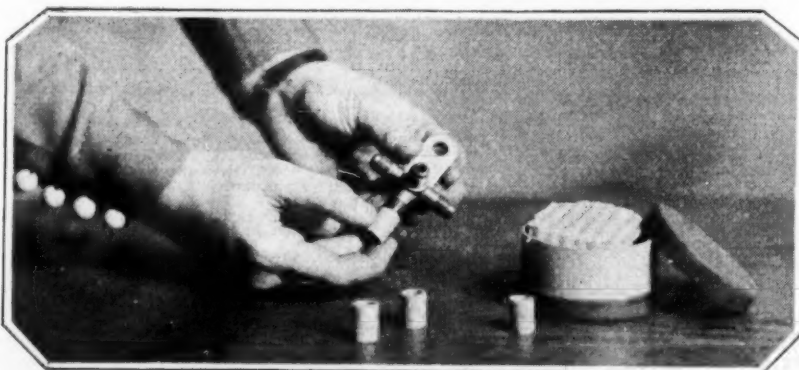
Denver, Colo.—The B. K. Sweeney Electrical Co., which handles General Electric units, has just completed what is reported to be one of the largest refrigerator display rooms west of the Mississippi river. The room faces Broadway and 13th Ave.; indirect electric lights illuminate the showroom at night.

KELVINATOR REPRESENTED AT N. E. L. A. CONFERENCE

Chicago, Ill.—The Kelvinator Corp. exhibited a new Model D-22 cabinet refrigerator at the N. E. L. A. Merchandise Sales Conference held at the Edgewater Beach Hotel, Jan. 21 and 22.

Messrs. D'Arcy of the utility division, and Garceau of the advertising department, and Maginnis and Foersterling, district managers, represented Kelvinator Corp. at the meeting.

Tiny Tubes Protect Brass Threads on Small Fittings in Transit



SMALL cardboard tubes are used in the refrigeration industry for the protection of fittings in transit. The tubes illustrated here are made by the Cleveland Container Co. for shielding the threaded ends of the fittings.

THE CONDENSER

ADVERTISING RATE fifty cents per line (this column only).

SPECIAL RATE if paid in advance—Positions Wanted—fifty words or less, one insertion \$2.00, additional words four cents each. Three insertions \$5.00, additional words ten cents each. All other classifications—fifty words or less, one insertion \$3.00, additional words six cents each. Three insertions \$8.00, additional words sixteen cents each.

POSITIONS AVAILABLE

EXPERIENCED salesmen to sell Kelvinators in electrical refrigeration division of public utility company's merchandise sales organization. 12½ per cent commission. Apply to Merchandise Sales Dept., Metropolitan Edison Company, 412 Washington Street, Reading, Pa.

PUBLIC Utility has opening for several experienced men capable of supervising groups of salesmen in its merchandise sales organization. Salary and commission. Apply to Merchandise Sales Dept., Metropolitan Edison Company, 412 Washington Street, Reading, Pa.

POSITIONS WANTED

SEVEN years' experience, service man, service manager, commercial sales engineer and assistant to sales manager of national company. Thoroughly understands several units and qualified in dry expansion Larkin coils. Willing worker who will appreciate an opening where future is possible. Will be available April first or before. Eastern location preferred. Box 227.

COMMERCIAL salesman of executive ability desires position with manufacturer or distributor as chief sales engineer or sales manager. Six years' experience sales and supervision of service and installation of ammonia machines up to ten tons. Four years as commercial sales executive large methyl chloride manufacturer—thoroughly experienced application all types lowside, estimating, design, installation special equipment, sales school instruction. Graduate mechanical engineer, voting member A. S. R. E. references furnished. Box 224.

MISCELLANEOUS

FOR SALE—Large stock of Served S7 refrigerators far below cost. Good opportunity for profit. All in original crates. Box 230.

FOR SALE—Complete stock of electric refrigerators, including finished cabinets, cooling units with trays, electric motors, compressors and fittings. Will sell the complete stock or any part thereof. Address P. O. Box 391, Mt. Vernon, Ohio.

RECO ELECTRIC MILK COOLING

"The Boiler Plate Cabinet"
DOMESTIC UTILITIES
Division of the Refrigeration Corp. of Maryland
ARLINGTON, BALTIMORE, MD.

TO MANUFACTURERS OF ELECTRIC AND GAS UNITS

If you want CABINETS as you want them let PUFFER-HUBBARD build them. We work to specification.

Puffer-Hubbard Mfg. Co.
MINNEAPOLIS, MINN.

Electrical Refrigeration Efficiency

is assured with



Wirfs PATENTED "AIRTITE" GASKET

Improves the efficiency of door contacts on wood or metal boxes and decreases operating costs—a valuable economy talking point for salesmen.

WIRFS CORPORATION
135 S. 17th St. St. Louis, Mo.

ELECTRIC REFRIGERATION NEWS

Registered U. S. Patent Office.

The business newspaper of the refrigeration industry

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FIFTEEN CENTS PER COPY
TWO DOLLARS PER YEAR

GRIGSBY-GRUNOW CO. ERECTING BIG PLANT FOR MAJESTIC UNIT

Production Probably Will Begin in
Second Week of May

ADHERING strictly to a policy of reserving official announcements until such time as definite statements in regard to plans, models, prices and other details can be made, the Grigsby-Grunow Company, makers of Majestic radio sets, has added nothing to its original announcement that it intended to enter the electric refrigeration field. That fact was printed in the January 29 issue of *ELECTRIC REFRIGERATION NEWS*.

There are physical evidences, however, of the scope of the Grigsby-Grunow plans. An addition providing 131,000 square feet of floor space has been made to the Armitage Avenue plant in Chicago. This big structure is practically finished, and machinery for the manufacture of the refrigerator units is now being installed. At the Dickens Avenue plant, about a mile away, 75,000 square feet of the present radio plant have been cleared and prepared for the manufacture of refrigerators, and ground has just been broken for a new building that will provide 97,000 square feet. This will make a total of 303,000 square feet available for the refrigerator branch of the business. Cabinets will be made at the Dickens Avenue plant.

It is probable that the first refrigerators will be on the market by the second week in May. The Grigsby-Grunow Company has always pursued a policy of mass production in the manufacture of radios, and is likely to continue the same procedure in its refrigerator business. At present the radio plant is turning out 4,000 completed sets a day, and in the rush season when preparing for the Christmas trade, pushed that figure up to 6,000 units per day. If the same pace is maintained in the manufacture of refrigerators, 4,000 per day for example, the Grigsby-Grunow Company will soon assume a place as one of the biggest manufacturers in the entire industry.

In marketing its immense output of radio sets, the Grigsby-Grunow Company
(Concluded on Page 4, Column 4)

NEW COMMERCIAL UNIT IS NAMED AMERICAN ACE

Mishawaka, Ind.—The American Foundry Equipment Company of this city has entered the electric refrigeration appliance field with the American Ace, a completely enclosed, commercial condensing unit.

Developed in the experimental laboratories of the American Foundry Equipment Company by Thomas J. Fowler, who has been associated with the refrigeration industry for the past 25 years, the machine embodies many distinctive features. The compressing unit is completely enclosed, and all belts, idlers, stuffing boxes, and seals have been eliminated. The unit is extremely compact and operates at an unusual efficiency, due to the elimination of excess friction. It is guaranteed for a period of two years.

The American Ace condensing unit is a two-cylinder compressor driven by a two-cylinder motor which is started by a two-contact automatic magnetic switch mounted on the machine base. The cylinders are mounted on both sides of the motor, which permits a simple construction. There are only eight moving parts in the entire assembly. Although the machine is hermetically sealed, all parts are easy to get at. The pistons are driven by cranks mounted on each end of a hardened motor shaft rotating in two bronze bearings.

The motor is of the condenser type and is made by the General Electric Company. The condenser is cooled by a forced draft from a separate eight-inch fan mounted in a duct directly behind the motor case. This fan draws air up through the condenser located in the base of the machine, and discharges it over the cylinders.

Intake ports are located in cylinder sleeve. The discharge valve is a light steel disc. Unusual cooling is secured with this forced draft system, and pressure in the machine is greatly reduced by the rapid removal of heat from the fan type condenser, which is mounted just beneath the base of the machine. The efficiency with which this fan-cooled
(Concluded on Page 22, Column 4)

Safeguarding

ACCORDING to Harold Ferrea, a Kelvinator Northwest service man, a Kelvinator prevented the robbery of a cigar store in Nampa, Idaho, recently. The Jensma Creamery Co. had a four-hole ice cream cabinet at the Club Cigar Store, standing next to the safe. One night burglars forced their way into the store and dynamited the safe. When its door blew open it swung around on its hinges and the safe door handle punched a hole in the dome of the refrigerating unit of the ice cream cabinet, releasing the gas. The burglars fled, thinking they had sprung a burglar alarm and were being gassed—which they were, but only accidentally. The money in the safe remained untouched.

WILSON NOW GENERAL MANAGER OF REO MOTORS

Lansing, Mich.—William Robert Wilson, chairman of the board of directors of Copeland Products, Inc., Mt. Clemens, Mich., has been made general manager of the Reo Motor Car Co., it was announced on Feb. 17 by Richard H. Scott, president. Mr. Scott resigned as general manager, and, after a vacation in Florida, will return as president of the Reo company.

Mr. Wilson's first connection with the motor industry was in association with Dodge Brothers. He later was with the Chrysler Corp. and was receiver for the Murray Body Corp.

He was a New York banker before joining Dodge Brothers, and was one of the organizers of the Guardian Trust Co. and Guardian National Bank of Detroit.

Postponement

THE meeting of the Detroit Section of the American Society of Refrigerating Engineers, which was scheduled for March 3, has been postponed until Monday, March 17. This meeting will be devoted to a discussion of service problems, and Edward Barger, service manager of Copeland Products, Inc., has consented to act as chairman. Mr. Barger is arranging a program that will be of interest to everyone connected with electric refrigeration, and it is expected that the attendance at the meeting will be greater than usual. The meeting will be held at the Masonic Temple. All who are identified with electric refrigeration will be welcomed, whether or not they are members of the A. S. R. E.

CLEVELAND IS HOST AS G. E. MEN HOLD SALES CONVENTION

Distributors and Toppers Gather
for Annual Conference

Cleveland, Ohio—The leaders of the field forces of the General Electric Company's Electric Refrigeration Department, met here on February 19 and 20 for their third annual sales convention. The guests of the home office, which is situated here in Cleveland, numbered more than 500, and represented every important city in the country. They made their headquarters at the Hotel Hollenden, and held their convention sessions at the Public Auditorium.

The G. E. distributors, at least all of them who were able to travel, were on hand, accompanied by those salesmen who had won the honor of membership in the Toppers Club, that exclusive G. E. organization which restricts its membership to men who think that a quota is something to be left behind reasonably early in the year. Throughout the country there are about 8,000 G. E. refrigerator salesmen, and as there are only about 150 men in the Toppers Club, the excellence of their selling records can be easily appreciated.

The vanguard of the invaders turned up on Tuesday, February 18, but most of the visitors, including a big delegation from the East which chartered a special train, came in on Wednesday morning. The first session of the convention, which was called the "Sealed in Steel" Convention, was devoted largely to a photophone demonstration of just what sealed in steel really means. A G. E. refrigerator was shown braving the terrors of fire and flood without damage to the delicate and hermetically sealed mechanism.

The good old Erie Canal, which accommodates flows past the G. E. plant at Schenectady, furnished the flood part of the program. The poor refrigerator, which had been picked to demonstrate its imperviousness to water, was dipped into the canal and duly hauled out again without losing a bit of its operating efficiency. The fire scene was equally impressive to everybody but the refrigerator, which hardly seemed to notice that anything unusual was going on.

Having proved what the G. E. refrigerator can do, those in charge of the convention switched to a demonstration of what they intend to do in order to let the public become thoroughly familiar with the machine's capabilities. An expenditure of \$6,000,000 for advertising in various forms was promised for 1930, and those present had a chance to see some of the remarkable advertising material that is now being prepared. W. J. Daily, manager of the sales promotion division, conducted the advertising discussion and made it plain that this year the General Electric Company intends to base its public appeal on its slogan, "Of the hundreds of thousands of users, not one has paid a cent for service." This slogan was emblazoned on the walls of the theatre, and kept turning up in all sorts of places during the two days that the convention lasted. In the 1930 advertisements it is constantly reiterated.

Mr. Daily's talk concluded the morning session, and the G. E. forces, headed by the Toppers, wearing top hats and canes, paraded to the City Hall, where they were formally welcomed to Cleveland by Mayor Marshall. A giant golden key to the city was presented by the Mayor to Albert Matsinger of Philadelphia, the G. E. salesman who led the entire country in refrigerator sales. After the ceremony on the City Hall steps, the parade reformed and proceeded to the Hollenden, where luncheon was served in the Show Boat room. A special G. E. edition of the *Cleveland News* was distributed during the luncheon.

Back in the auditorium for the afternoon meeting, the distributors and Toppers listened to an exposition of some of the activities of the parent corporation. For more than an hour refrigerators were forgotten as E. L. Manning, of the General Electric Research Laboratories at Schenectady, told of some of the wonders of science into which General Electric research is constantly delving. He made it clear at the outset of his talk that some of the most important discoveries made at Schenectady were the result of following side issues that presented themselves to the investigator, who had started out to find out some definite thing. In many cases
(Continued on Page 4, Column 5)

The G. E. Army on the March



Even the Stop and Go sign fled to the curb when the Toppers came in sight.

BORG-WARNER PLANNING NORGE SELLING CAMPAIGN

Chicago, Ill.—Preliminary announcement of plans for an intensive selling campaign on a complete line of household electric refrigerators was made on February 17 by Borg-Warner Corporation, through the Norge Corporation, a subsidiary with plants at Detroit, Mich. The campaign will cover both the domestic market and the export field.

Indication that Borg-Warner planned to become a factor in the electric refrigeration field came some months ago, when the Detroit Gear & Machine Company, of which Norge Corporation was an affiliated company, was taken over by the holding corporation.

Detroit Gear & Machine Company, after two years of refrigeration development, during which a limited number of machines were sold, organized Norge Corporation in January, 1927. During the last three years thousands of machines were marketed, but largely at points strategic for tests under varying climatic conditions in the United States, South America and Europe. A limited selling organization was developed, and this, Borg-Warner officials say, will be expanded at once.

This expansion program will be in charge of Major Howard E. Blood as president and general manager. Major Blood retains his connection with Detroit Gear & Machine Company, another Borg-Warner subsidiary, as president

and general manager. He has been closely identified with Norge Corporation for the last five years, and in conjunction with Borg-Warner engineers developed the new Norge household refrigerator.

"We are entering extensively into the manufacture and marketing of this new product immediately," Major Blood said recently. "We are using an entirely new method of assembly which permits the removal of all mechanical parts and freezing coils as a single unit and simplifies dealer handling. The Norge compressor of special rotary type makes possible manufacture and assembly at low production costs."

Contracts have been awarded for new machinery and manufacturing materials. Production is to start at once, preparatory to introducing the complete new line of Norge household refrigerators to the public about April 1.

MILWAUKEE CITY COUNCIL CONSIDERING CODE

Milwaukee, Wis.—The Common Council is considering a proposed ordinance calling for regulation of the installation and operation of refrigerating systems in Milwaukee buildings.

The Building Code Committee has had the subject under discussion several months, and recently made recommendations to the council in regard to the systems. However, the proposed ordinance, which originated with the National Coroners' Association, is said to be more inclusive.

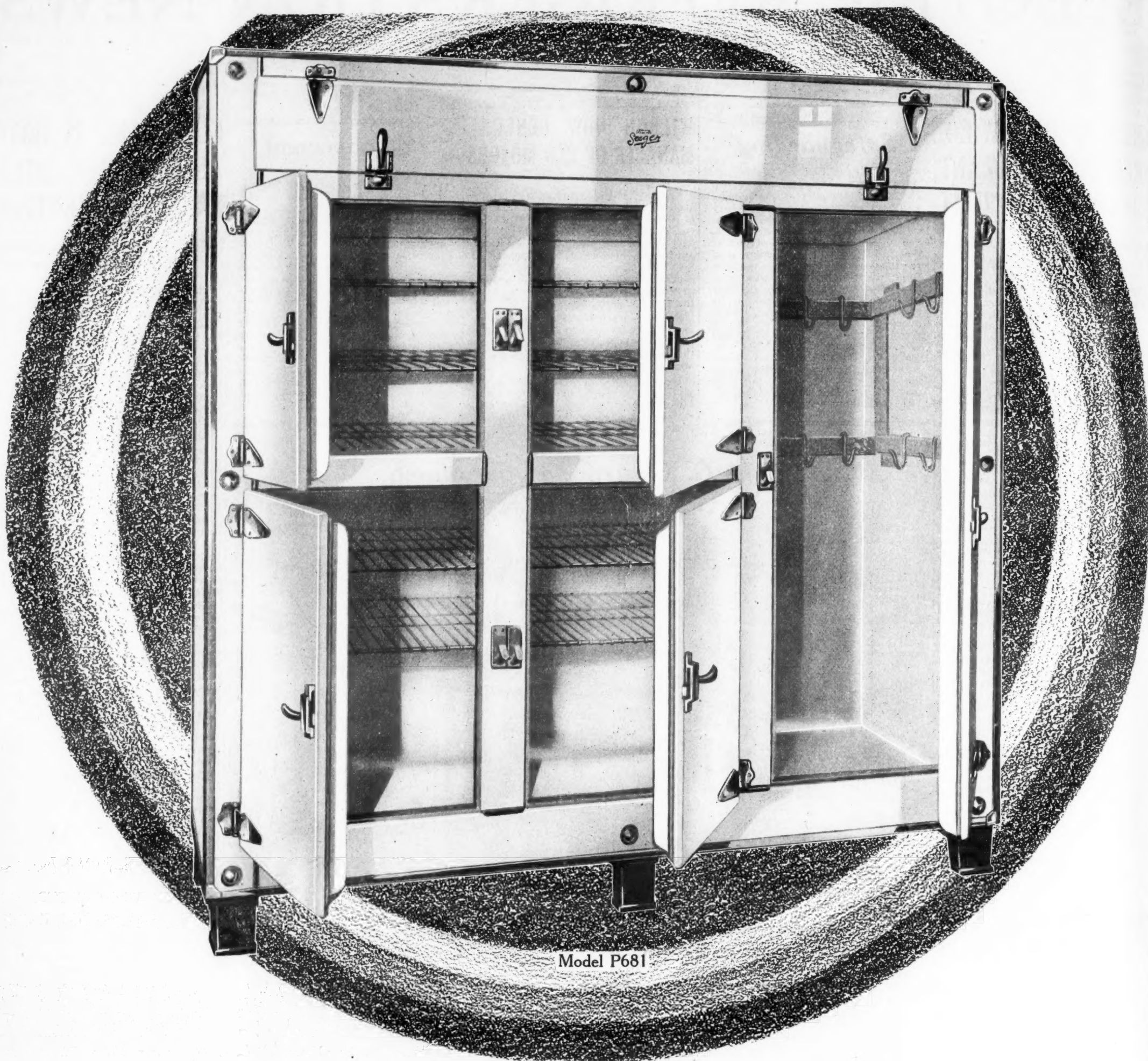
PENN ELECTRIC TO MAKE TEMPERATURE SELECTOR

WITHIN the next few weeks, the Penn Electric Switch Co., Des Moines, Iowa, will announce a new controller for domestic refrigerating machines. The tool equipment, dies, and necessary parts are now ready for assembly, and production will be started within the next two weeks.

This control embodies all of the features which were formerly housed in separate units. The new switch is small, neat, and compact. The case is made of Bakelite, and the following special features are incorporated in the control: 1. Hand switch for stopping and starting. 2. Thermal overload protection and reset button. 3. Differential and range adjuster. 4. Quick-Freeze control.

This temperature selector consists of an attractive dial, so that the temperature may be adjusted within certain limits on the outside of the case. No wiring will be necessary.

A standard pressure switch will operate over the entire range from 20" of vacuum to 30 lbs. of pressure. A standard temperature switch will operate from 20° below zero to 40° above. The control will carry a rating for a maximum of 1/4 hp. A. C. or D. C., and can be supplied in various models for special applications. The controller employs the magnet contact structure of the standard Type L Penn Magnet switch.



Model P681

COMMERCIAL CABINETS

By *Seeger* SAINT PAUL

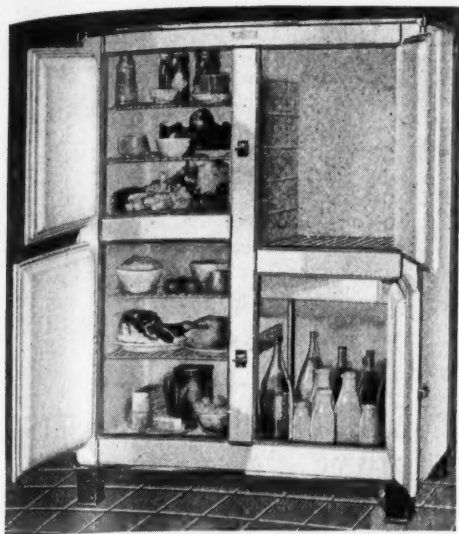
Announcing the New Line for 1930

Never before have we presented so many magnificent Cabinets—all of Seeger quality. These Cabinets are the ultimate in convenience, beauty, durability, efficiency and economy of maintenance. Sturdily constructed throughout, they will scientifically refrigerate food for many, many years.

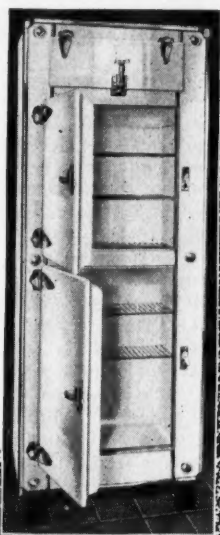
Cabinets are shown with the Seeger originated overhead coil compartment for Electrical, Gas or Mechanical refrigeration. Others shown with bunkers may be used also with ice.

The Seeger Made to Order Department will solve any Refrigeration problem that cannot be taken care of with the stock Cabinets.

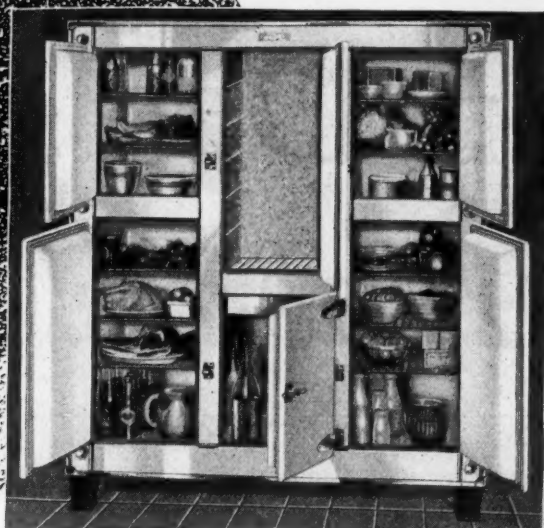
SEEGER REFRIGERATOR COMPANY
SAINT PAUL, MINNESOTA



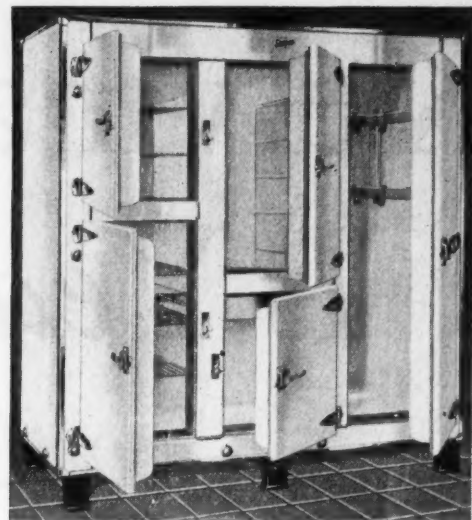
Model P16



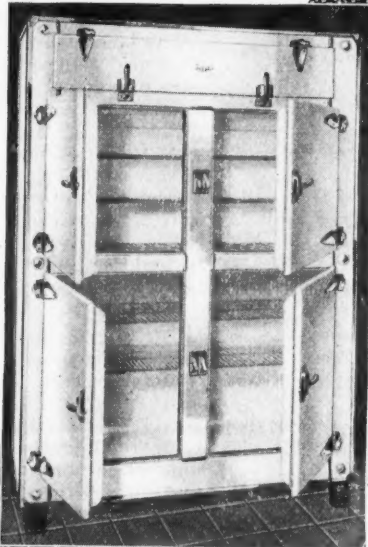
Model P21



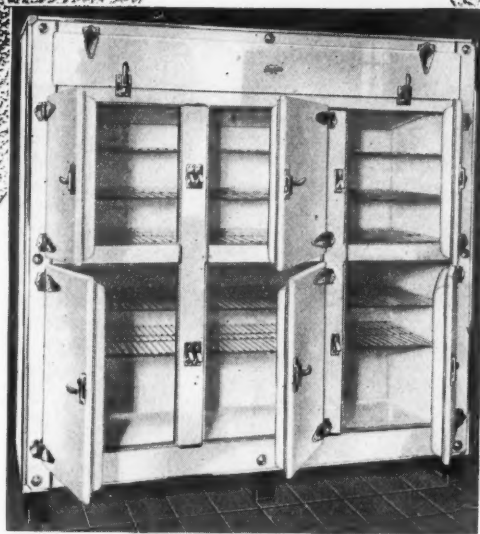
Model P32



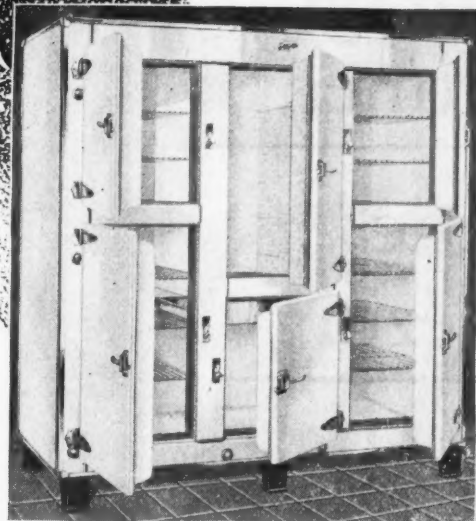
Model P431 and P491



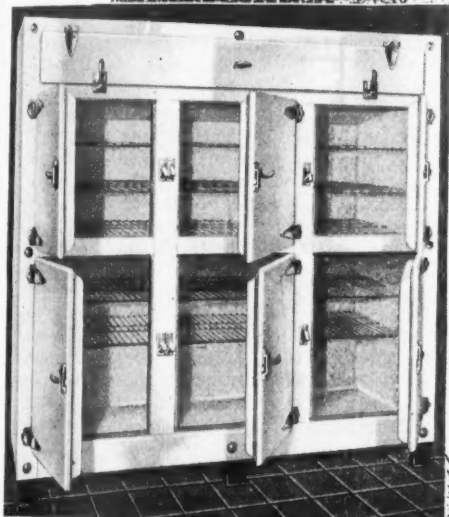
Model P44



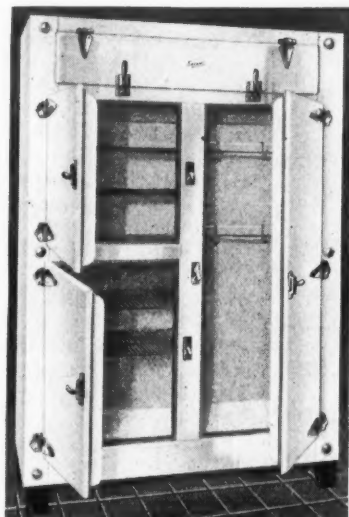
Model P68



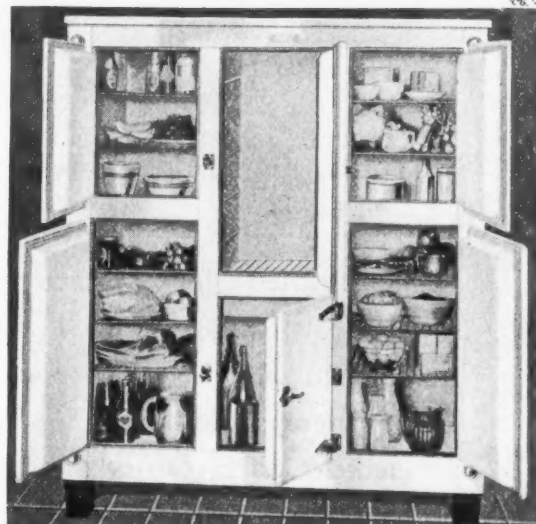
Model P43 and P49



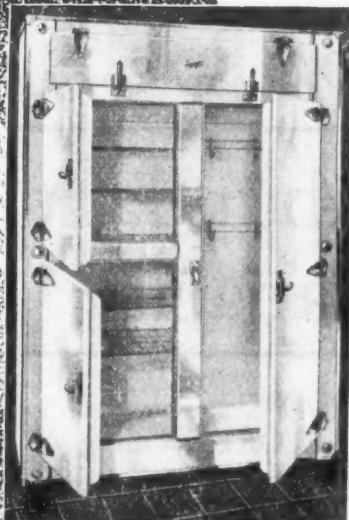
Model L68



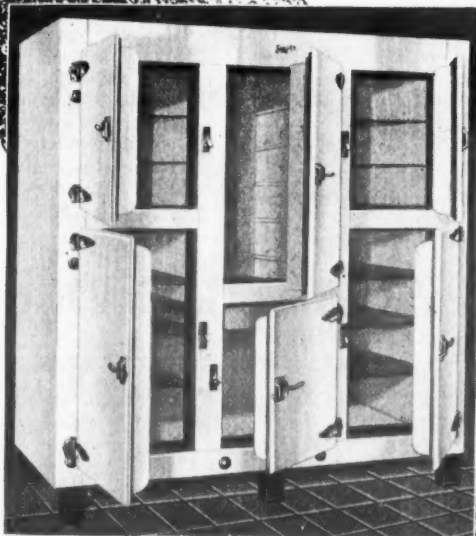
Model L441



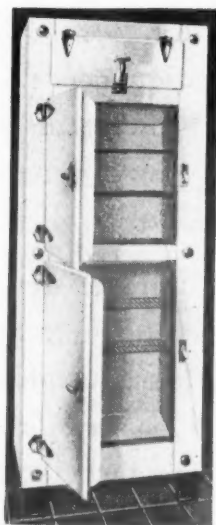
Model L32



Model P441



Model L43 and L49

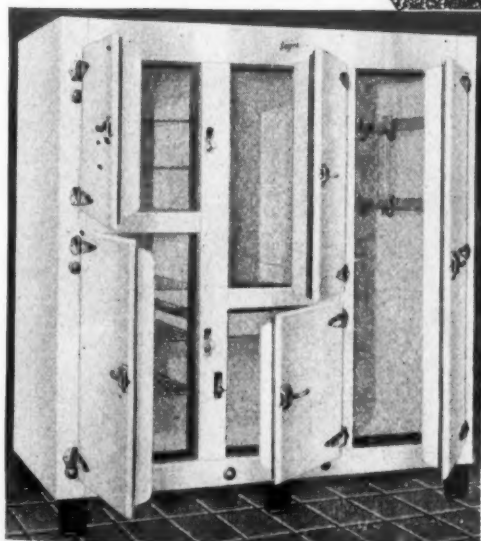


Model L21

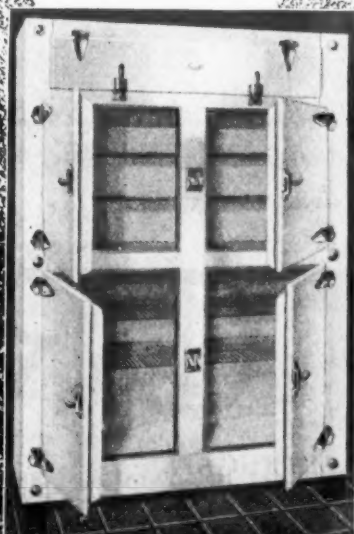


Model L16

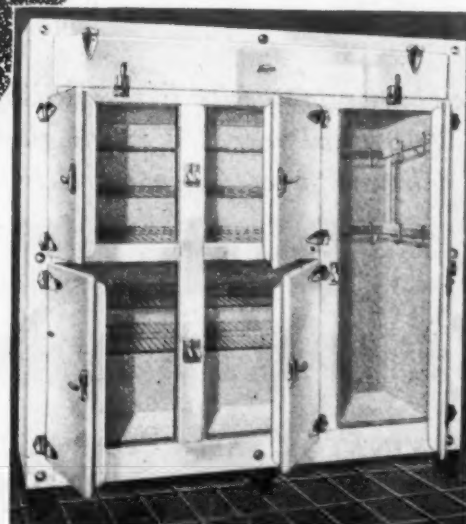
CABINETS BY
Seeger
SAINT PAUL



Model L431 and L491



Model L44



Model L681

Kelvinator Design Is Years Ahead!

with

Cold Storage
Compartment

Automatic
Fast Freezing

Controlled
Temperature
for Foods

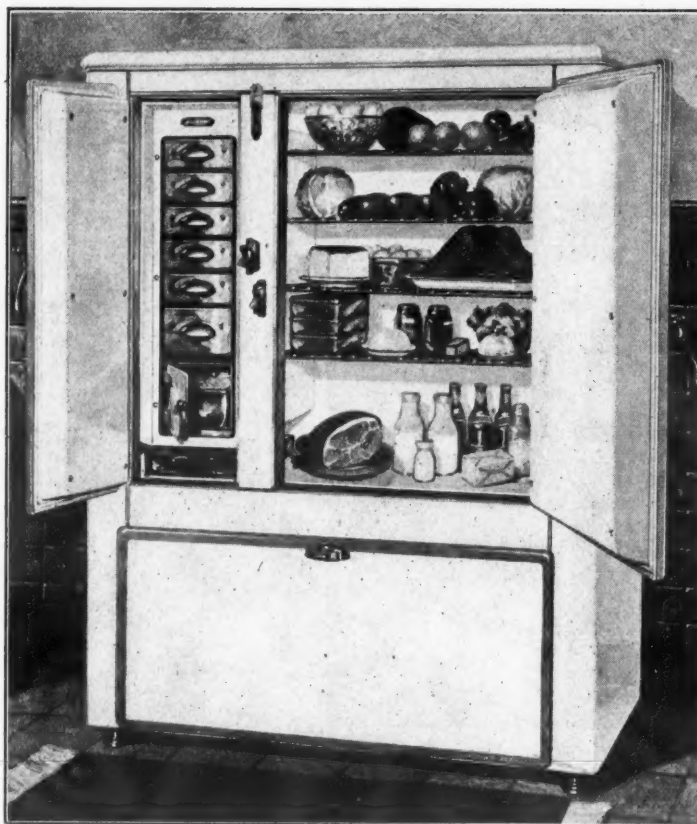
Abundant Ice
Capacity

BEFORE deciding on any electric refrigeration franchise, make sure that the product answers *tomorrow's needs* as well as the requirements of today.

You can look forward confidently to years of profitable business with Kelvinator, because Kelvinator electric refrigeration *today* is years ahead in what it offers home-owners.

Only Kelvinator for example provides a special Cold Storage Compartment—with below freezing temperature—for proper care of frozen fish, meats, fruits, or keeping an extra supply of ice cubes on hand.

Exclusive to Kelvinator, too, is Automatic fast freezing, achieved by Iso-Thermic



Tubes, the world's fastest automatic freezing device.

Unmatched for perfect preservation of foods is the controlled 40 to 50 degree cold in Kelvinator's spacious food compartment. And unit for unit, Kelvinator electric refrigerators offer the most bountiful ice capacities—up to 35 lbs. at a freezing—to be found in the industry.

Kelvinator has been *first* for 16 years in anticipating future refrigeration needs. And it is *first today* in basic advancements which overshadow all previous developments in automatic home refrigeration.

Check Kelvinator's new cabinet design—in three price ranges. Note their artistic beauty and rugged construction—gleaming white porcelain interiors—extraordinary food storage space. From the electrically lighted de luxe models to the efficient smaller sizes, each presents a value that wins sales on any basis of comparison.

To Dealers: Kelvinator prosperity is revealed by a 53 per cent increase in sales for the first 4 months of the 1930 fiscal year. We will gladly forward full details of the complete new line of Super-Automatic Kelvinators to interested dealers.

KELVINATOR

KELVINATOR SALES CORPORATION, DETROIT, MICHIGAN
KELVINATOR OF CANADA, LTD., LONDON, ONT.
KELVINATOR, LIMITED, LONDON, ENG.

BIG FACTORY UNDER WAY FOR GRIGSBY-GRUNOW CO.

(Concluded from Page 1, Column 1)
depends upon forty-eight distributors covering the entire country. Shipments in carload lots are made to these distributors direct from the factory, and they in turn divide these shipments among their dealers. Most, if not all, of these forty-eight distributors will also handle the new Majestic refrigerator. A list of these distributors follows:

MAJESTIC DISTRIBUTORS

Air-Ola Radio Co., Inc., P. O. Box 484, Huntington, W. Va.
The Harry Alter Company, 340 N. Dearborn St., Chicago, Ill.
Badger Radio Corporation, 480 Market St., Milwaukee, Wis.
The Benwood-Linze Co., 19th and Washington Ave., St. Louis, Mo.
Capital Electric Co., 7 Auburn Ave., Atlanta, Ga.
Capitol Electric Co., 122 S. Senate Ave., Indianapolis, Ind.
The Cooper Louisville Co., 217 S. First St., Louisville, Ky.
Detroit Electric Company, 101 E. Jefferson Ave., Detroit, Mich.
J. E. Dilworth Company, 353 S. Front St., Memphis, Tenn.
Eisenbrandt Radio Company, Inc., Pace and Pratt Sts., Baltimore, Md.
Forbes Radio & Refrigerator Co., 1707 First Ave., N., Birmingham, Ala.
Hamburg Brothers, 963 Liberty Ave., Pittsburgh, Pa.
Harbour-Longmire Company, 418 W. Main St., Oklahoma City, Okla.
Hieb Radio Supply Co., 1223 Locust St., Des Moines, Ia.
Horrocks-Ibbotson Company, 54 Genesee Street, Utica, N. Y.
Intermountain Majestic Co., 1257 Broadway, Denver, Colo.
Kimball-Upson Company, 607 Kay St., Sacramento, Calif.
Majestic Distributing Co., John St. at Terry Ave., Seattle, Wash.
Majestic Distributing Corp., Florida Ave. at Jackson St., Tampa, Florida.
Majestic Dist. Co. of Cincinnati, 1042 Gilbert Ave., Cincinnati, Ohio.
Majestic Dist. Corp. of Cleveland, 4608 Prospect Ave., Cleveland, Ohio.
Majestic Distributors, Inc., 539 Commonwealth Ave., Boston, Mass.
Majestic Distributors, Inc., Suite 1127-1775 Broadway, New York, N. Y.
Majestic Products, Inc., 90 Hudson Ave., Albany, N. Y.
Majestic Wholesalers, Inc., 392 Elm St., Buffalo, N. Y.
Nevada Auto Supply Co., 128 E. Second St., Reno, Nevada.
North Ward Radio Co., 367 Plane St., Newark, N. J.
Pelce-Phelps, Inc., 437 N. Fifth St., Philadelphia, Pa.
R. S. Proudft Co., 720 "O" St., Lincoln, Nebr.
The Radio Equipment Co., 109 E. Monroe St., South Bend, Ind.
Radio Equipment Co. of Texas, P. O. Box 2431, Dallas, Texas.
Radio Sales Company, 483 S. Main St., Memphis, Tenn.
The Roberts-Toledo Co., Adams and Jackson Sts., Toledo, Ohio.
The Roycraft Company, 25 N. Third St., Minneapolis, Minn.
Sharar-Hohman, Inc., 704 Clinton Ave., So., Rochester, N. Y.

Shaws' Inc., 314 S. Tryon St., Charlotte, N. C.
Southern Hardware & Bicycle Co., 20 E. 14th St., Jacksonville, Fla.
Specialty Service Corporation, 651 Atlantic Ave., Brooklyn, N. Y.
Sterling Radio Company, 1515 Grand Ave., Kansas City, Mo.
Thompson & Holmes, Ltd., 954 Mission St., San Francisco, Calif.
Ungar & Watson, 1363 1/2 S. Figueroa St., Los Angeles, Calif.
United Electric Supply Co., 117 W. Fourth South, Salt Lake City, Utah.
Woodhouse Electric Co., 238 Court St., Norfolk, Va.
Woodward-Wight & Co., 451 Howard Ave., New Orleans, La.

G. E. UNFOLDS 1930 SALES PLANS TO DISTRIBUTORS

(Continued from Page 1, Column 5)
the slide issues developed completely overshadowed in importance the original object of the research.

The statement that held the attention of every man present was the tale of how one investigator had stumbled on a means for producing an artificial fever which in the future may possibly be used for ridding the body of certain diseases without subjecting the patient to the discomforts and dangers of natural fever. Experimentation in collaboration with an Albany medical school is under way at present to determine the full value of this unexpected discovery.

The engineering features of the G. E. refrigerator were then explained by A. R. Stevenson, Jr., and C. Steenstrup. The latter, who was largely instrumental in working out the design of the G. E. refrigerator, with its refrigerating unit on the top, was hailed with cheers, and he proceeded to evoke more as his speech progressed. His faith in, and enthusiasm for, the G. E. refrigerator is contagious, and in simple language he put over a message based on the safeguarding of health that was the high spot of the entire convention. Long after the Wednesday afternoon session was over, the Toppers were still talking about Chris Steenstrup's speech.

Business was totally and effectually suspended on Wednesday evening, when the annual banquet was held in the grand ball room of the Hollenden. M. F. Mahony, assistant to the manager, was master of ceremonies, and he put on a show that kept the G. E. men shouting and singing until nearly midnight. The room had been built up into an amphitheatre, so that every table had an unobstructed view of the stage. It was a view worth having, for Mr. Mahony and his aids evidently exercised considerable skill in selecting the company of performers and performeresses, especially the latter.

During the evening the stage was cleared for a few moments while P. B. Zimmerman, sales manager, presented special rewards to the four distributors who had made the best showings in their groups during 1929. First on the list was McCrea of Washington. Mr. McCrea heads the National Electric Supply Company in the national capital. Next in line was W. H. Ochiltree, of the Ochiltree Company, Inc., Pittsburgh. He was followed by W. N. Hogan, of W. N. Hogan, Inc., of Wheeling, West Virginia. Mr. Zimmerman then announced

(Continued on Page 8, Column 1)

The Leading G. E. Distributor



C. L. McCrea, of the National Electric Supply Company of Washington, given out at the G. E. Convention. He was the first man called forward when the special distributors' trophies were shown with his hard won prize.

It's the REFRIGERATOR *that pays* *and pays* *and pays*

It pays the *dealer* who sells it—not just because it brings him a profit, but because its remarkable trouble-free performance in the home wins for him the complete confidence of his customers and assures him of their regular trade.

It pays the *Central Station*, because it is unbeatable as a heavy load builder—on the job day and night—month in and

month out—summer and winter—*always*.

It pays the *consumer*, not just because it is so efficient, so utterly reliable and worry-proof, but because every owner soon discovers that the finest refrigerator is the most inexpensive to own. Of the hundreds of thousands of owners of General Electric Refrigerators, *not one* has paid a cent for service!



GENERAL  ELECTRIC
ALL-STEEL REFRIGERATOR

ELECTRIC REFRIGERATION DEPARTMENT OF GENERAL ELECTRIC COMPANY,

HANNA BUILDING, CLEVELAND, OHIO

BETTER APPLICATION NEEDED FOR COOLING PERISHABLE FRUITS

By Frank W. Gray

MEAT preservation is a favorite topic of discussion in electric refrigeration sales meetings. Meat is highly perishable, and electric refrigeration has fulfilled a great need in providing a scientific temperature at which meat products can be safely preserved without spoilage. Fruits and vegetables, however, have come into the picture with only casual notice.

The reasons for this are obvious: bacteria growth in meat stuffs is very insidious, harder to detect, and results in dangerous poisons which are injurious to life. Meat will spoil quickly if kept under improper conditions, and commercial food vendors have been fairly quick to realize this fact and therefore have taken advantage of the automatically correct temperatures maintained by mechanical refrigeration. Spoilage in fruits and vegetables is much easier to detect, and is not so dangerous to life through food poisoning.

High Moisture Content Needed

Another reason why electric refrigeration men have failed to stress the application of their equipment to the preservation of fruits and vegetables is that a high moisture content, a constant supply of cool fresh air, and proper methods of display are necessary to keep the more perishable items during the summer season. High moisture content and a constant supply of cool fresh air are not easily obtained under the conditions which usually govern the installation of mechanical refrigeration equipment.

Then, too, the commercial food vendor usually relies upon rapid turnover to constantly renew his supply of vegetables and fruits, and does not consider spoilage a dangerous factor.

The average turnover of fruits and vegetables varies from 25% per day to as high as 80% per day. An aggressive merchant who is a clever buyer can usually turn his stock in these items at

least every two days. Naturally such a turnover is highly profitable, even though the gross return may average only 15%. But it is also a fact that the majority of merchants have neglected the problem of proper preservation of their fruit and vegetable stocks, and the subsequent loss cuts down the net return from this rapid turnover.

Such perishable items as lettuce,

celery, melons, various greens, tomatoes, berries and peas will deteriorate very rapidly on a hot day if not handled properly. The result is that many food merchants attempt to purchase such stock in a green state and rely upon quick turnover to get it off their hands before spoilage becomes a factor. That there are varying degrees of success in this policy can be determined by anyone who inspects the amount of culling and garbage disposal that takes place in the rear of the average food store on a hot summer morning, when the stocks left over from the day before are put on display for the day's business.

The trouble with stocking such products in the green state and relying upon the ripening process while on display to put them in shape to sell is that such ripening usually takes place unevenly. The question is what type of display and refrigeration is best adapted to maintain such items over night and through the day in as nearly as possible perfect condition?

Reserve Stocks Should Be Kept Apart

First, there should be some differentiation in the keeping of perishable vegetable and fruit stocks that are to be held in reserve, and those used for current display. The practice of piling both reserve and display stocks indiscriminately together in counters or in bins leads to much of the depreciation suffered by merchants. Reserve stocks should be kept under some degree of refrigeration. In most cases about a 50 degree temperature is best. Perishable fruits and vegetables should not be kept in meat coolers. The proper temperature for the keeping of meats is not the best for fruits and vegetables, and neither type of product benefits from such proximity. The air

in a meat cooler is usually not fresh and humid enough for the proper keeping of fruits and vegetables.

When on display fruits and vegetables of a perishable nature are best kept in galvanized metal racks, with a fine spray of moisture sifting down over them. Such racks can be built in basket style so that the air has a free circulation both from above and below. The fruits or vegetables should be piled in single tiers, as much as is possible, so that good air circulation is insured. The metal racks can be arranged in successive tiers so that good display value is obtained.

While held in reserve, perishable fruits and vegetables should be kept at a lower temperature, piled in the same type of racks, without so much moisture, but with good air circulation.

A New Type of Stand

Recently the writer had a part in designing fruit and vegetable storage and display fixtures for a merchant which have worked out very well, both for the purpose of display and storage. Counters insulated with an inch of cork and lined with white enameled metal were used. Above the counters were metal basket work racks in successive sloping tiers, open to the air. Above these racks a water pipe with needle sprays concentrated on metal disks provided a constant sifting of moisture so fine that it was scarcely more than a fog and did not interfere with customers who wished to handle their own products.

In the under part of the counter, which was closed all around but open on the top, were other sliding racks of the same type, where reserve supplies could be kept to replenish the display stocks. Three refrigerated coils were run along the top of this open counter, sufficiently cooling the air below to provide a fifty degree temperature. A small pressure type water cooler supplied the spray pipes over the counters with a constant supply of cool water. By this means the display stock was provided with plenty of fresh damp air, both above and below, while the reserve stocks were kept in a cool damp refrigerator with a constant renewal of fresh air from above. The results were particularly gratifying in the preserving of such perishable items as are named above.

The retailing of fruits and vegetables can be tremendously profitable, and it behooves electric refrigeration men to take the initiative in adapting their equipment to the preservation of these products, as they have in the problems of meat storage.

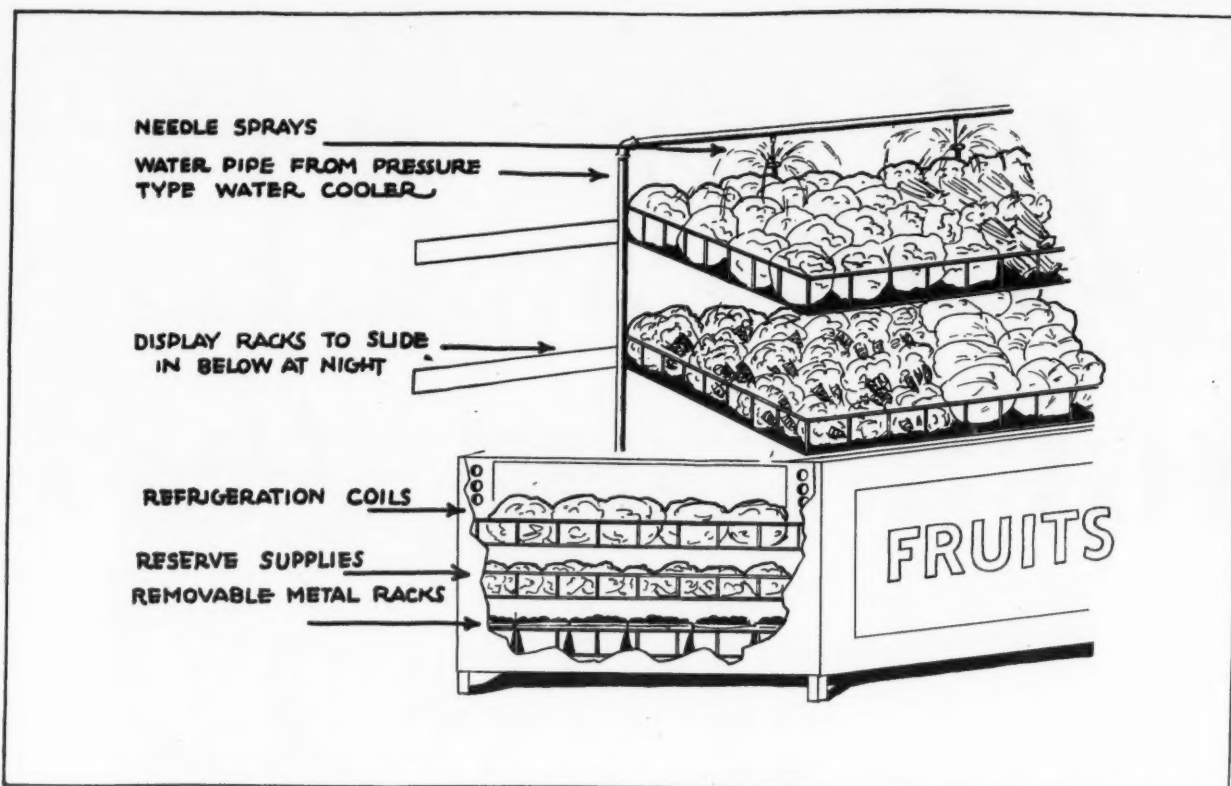
MAY OIL BURNER REPORTS GAIN IN 1929 SALES

Baltimore, Md.—At a recent special meeting of the board of directors of May Oil Burner Corporation an extra dividend of 50 cents per share was declared on the common stock.

It is understood that their earnings for 1929 were double those of 1928, which indicates that the oil burner industry is rapidly achieving public acceptance.

The company also reports the establishment of a factory and subsidiary organization in Toronto, Canada, to take care of the rapidly expanding demand for its product in the Dominion.

Display Stand Keeps Vegetables Fresh



15 reasons why you should sell this new advanced electric refrigerator WILLIAMS ICE-O-MATIC NEW CAPITOL MODEL

- 1 Williams Ice-O-Matic refrigeration arms your salesmen with fifteen foremost sales features.
- 2 Williams offers Ice-O-Matic dealers direct factory contact—you get the full discount.
- 3 Ice-O-Matic units may be installed on top of cabinet, in lower compartment, or remotely in basement.
- 4 Easy installation—plugs into light socket.
- 5 Truly quiet operation—not even radio interference.
- 6 Hermetically sealed mechanism—yet accessible.
- 7 Forced circulation of cooling air.
- 8 Greater cooling capacity—ample for hottest climates.
- 9 Efficient compressor runs fewer minutes—uses less current.
- 10 More food storage space than higher-priced makes.
- 11 Fourteen domestic models from P-19 Crysteel cabinet with larger Ice-O-Matic unit down to new Capitol model listing at \$175 at the factory.
- 12 Complete range of Ice-O-Matic compressors and cabinets covering the profitable commercial field.



13 Backed by sales-building advertising in national magazines and over a network of National Broadcasting Company radio stations.

14 Built by Williams Oil-O-Matic whose automatic oil burners are heating far more homes than any other make.

15 Simple retail finance plan for Ice-O-Matic dealers.

Read these money-making facts again—then write or wire for details on this valuable new Williams Ice-O-Matic sales license.



NEW CAPITOL MODEL

\$175

and up, at the factory Convenient Payments

Address Ice-O-Matic Division

WILLIAMS OIL-O-MATIC HEATING CORPORATION

BLOOMINGTON, ILLINOIS

RADIO

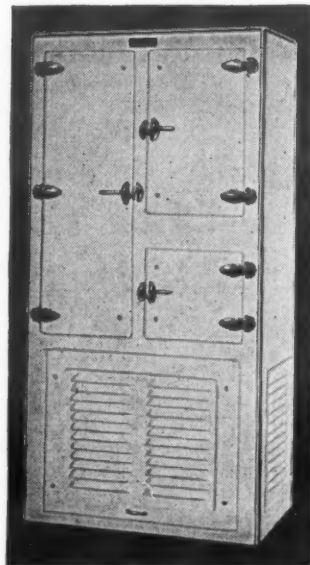
Williams Oil-O-Matic
SUNDAY EVENING, 7:30 to 8:00
(Eastern Time) NBC Chain, WJZ, WBZA, WBZ, WLW, WHAM, WJR, WGN, KWK, WREN, KOA and KSL.
WEDNESDAY EVENING, 7:30 to 8:00 (Eastern Time) KDKA.
THURSDAY EVENING, 7:30 to 8:00 (Central Time) WGN.
SATURDAY EVENING, 8:00 to 8:30 (Pacific Time) KFRG, KMJ, and KHJ.

WILLIAMS OIL-O-MATIC HEATING CORP.
Bloomington, Ill.
Please explain Williams Ice-O-Matic and the Williams Sales License.

Name _____
Address _____
City and State _____

WILLIAMS
ICE-O-MATIC
REFRIGERATION

"It was built by BOHN"



The handy base cabinet may either be used for refrigerating machinery or the storage of cooking utensils, canned goods, vegetables, etc.

The name BOHN is our warranty that the finest materials obtainable have been utilized by skilled craftsmen and refrigeration engineers to build for you this beautiful and scientific product—an all-porcelain BOHN refrigerator.

BOHN installations include many of the leading hotels, restaurants and hospitals in America.

BOHN refrigerators are used exclusively on all Pullman-built railway dining and buffet cars.

The United States War Department has purchased hundreds of all-porcelain BOHN refrigerators for our army barracks and battleships.

In choosing BOHN refrigerators, discriminating home owners throughout the country have given BOHN a representative list of which any manufacturer might be proud.

Write for details of the remarkably low prices that are now prevailing.

BOHN REFRIGERATOR COMPANY
SAINT PAUL, MINNESOTA

a great new line of COPELAND

DEPENDABLE ELECTRIC REFRIGERATION

Introducing Exclusive Copeland Water Chiller, Seven-Speed Copeland Coldial and Locked Mechanism Chamber . . . A bigger, better, broader line of household, apartment and commercial refrigeration!

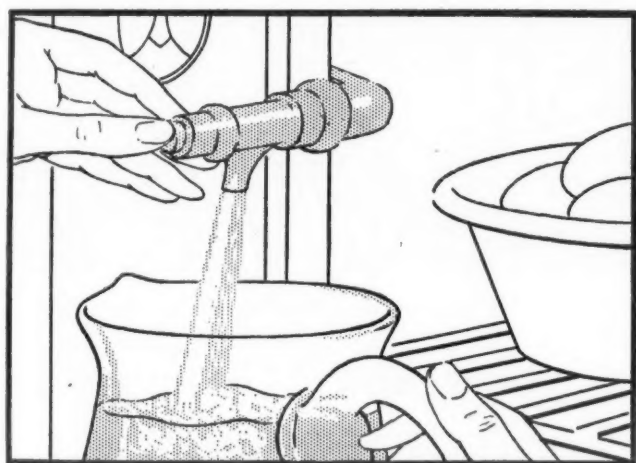
Copeland has laid the foundation of another successful year by introducing a splendid line of new Copeland household models, powerfully reinforcing the position of Copeland distributors and dealers.

For these new models make available—at new low prices—new completeness, convenience and utility. They beat down the barriers of sales resistance, for they introduce such selling features as the new Copeland Water Chiller—an instantly accessible Coldial with seven freezing speeds—Locked Mechanism Chamber—beautiful new All-Porcelain-on-Steel Cabinets with electric lights, bar-type shelves, and new chromium-plated hardware . . . all in addition to the many features for which Copeland already is famous!

Moreover, the rest of the new Copeland line—units for present ice boxes and for multiple installations, as well as Copeland Water Coolers and commercial refrigerating systems—still further entrench the dealer, and assure him his full share of electric refrigeration business in 1930!

The coming months will see further consistent gains for Copeland—further substantial profits for the Copeland dealer organization. If you want your share of these profits, write for information, today!

COPELAND SALES COMPANY, MOUNT CLEMENS, MICH.



Copeland Water Chiller—

The exclusive Copeland system for cooling drinking water. Large reservoir with accessible filler and faucet. Standard on de luxe models, available on other models. Other vital advancements include the instantly accessible Copeland Seven-Speed Coldial—Locked Mechanism Compartment which prevents tampering with unit—and beautiful All-Porcelain-on-Steel Cabinets featuring electric lights, optional colored tops, bar-type shelves and heavy chromium-plated hardware.

Copeland

DEPENDABLE
ELECTRIC
REFRIGERATION

G. E. LEADERS ASSEMBLE FOR SALES CONVENTION

(Continued from Page 4, Column 5)

that the fourth distributor to be honored, E. B. Edmundson, of the Edmundson Refrigerator Company of Houston, Texas, was seriously ill with bronchial pneumonia. R. T. Walker, of Mr. Edmundson's company accepted the trophy on his employer's behalf.

Albert Matsinger, the premier G. E. salesman, was then called to the front and loaded down with a special badge and a diploma, which he received with the same calmness and grace that he displayed earlier in the day when accepting the key to the city from the mayor.

Just as the banquet ended a special edition of On the Top, the G. E. salesmen's paper, made its appearance. It was filled with pictures taken during the day, including the ceremonies at the City Hall. A complete portrait gallery of the Cabinet members of the Toppers Club took up an entire page.

These self same cabinet members started off the second day of the convention with a 7:30 breakfast. Despite the lateness of the hour at which the banquet broke up, they were on hand for the breakfast, bubbling over with the same enthusiasm that made them lead the country in sales during 1929.

The morning session of the convention was devoted to a five-act play called "The Brooder." The G. E. sales plays are becoming famous, and this was no exception to the rule. The crowd liked it from the start to finish, and frequently stopped the show with their applause.

T. K. Quinn, manager of the refrigeration department, was host to the Toppers during the intermission. He led them away from the distributors, who had their luncheon as usual at the Hollenden, and took them over to the Hotel Cleveland. His talk was as good, or even



Mayor Marshall presents key to City to Albert Matsinger, premier G. E. salesman. The Toppers, with shining hats and canes, may be seen at the right.

better than the luncheon, in the opinion of many of the Toppers, with whom Mr. Quinn is decidedly popular. At the close of the luncheon the Toppers Club badges and diplomas were distributed to all except Topper Matsinger, who had received his the evening before.

Back in the theatre again, distributors and Toppers settled down to enjoy one of the most interesting, and at the

same time amusing, sessions of the entire two days, not excluding the banquet. What was expected to be a rather tedious talk on time payments and the handling thereof, turned out to be an uproarious skit, and at the same time put over a lesson in such a manner that not a man who saw it is likely to forget it for years to come. H. J. French, of the General Contract Purchase Corpora-

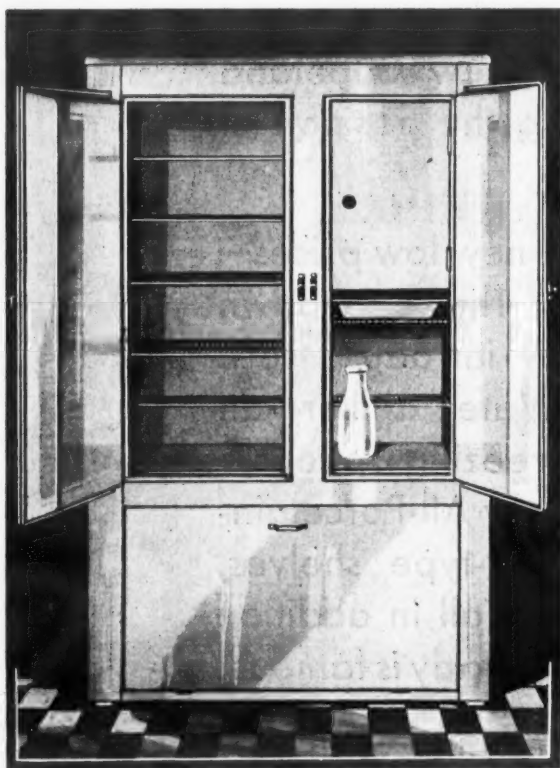
tion of New York, appeared dressed as a surgeon in full operating regalia. An operating table was wheeled in by a nurse, and Dr. French bent anxiously

over the patient who showed not a sign of life. Although the job seemed hopeless the worthy physician refused to become discouraged, and getting out his surgeon's instruments, set to work. One by one he extracted from his patient's head the time honored objections to time payments, and as each objection was removed, fresh signs of life manifested themselves. By the time the last obstruction had been taken out, the patient could hardly be held on the table. The operation was so complete a success that the quondam patient even bought a G. E. refrigerator on the time payment plan before he left the stage. Whether or not he paid Dr. French's bill, no one seemed to know.

Another speaker who brought an intensely interesting message was H. S. O'Neal, of the Apartment Selection Service, Chicago. Mr. O'Neal presented the customer's viewpoint, and did it in a manner that gave the salesmen present a picture of what is going on in the prospect's mind when they are making, or at least trying to make, a sale. In his capacity as directing manager of a large number of apartment houses, Mr. O'Neal owned up to buying more than 1,000 refrigerators, not all of them General Electric machines by any means. He had a good deal to say about how refrigerators should be sold, and how they should perform after they are sold. In that connection he had nothing but praise for the G. E. service policy, which, in his estimation, is a very important factor in G. E. sales.

Mr. O'Neal had a few words of criticism for some of his brothers in the apartment house business. He spoke a little harshly of the landlord who, when things began to go badly, begins to cut down expenses. "That is just the time

(Concluded on Page 19, Column 5)



NEW SELLING FEATURES of ILLINOIS-AUTOMATIC CABINETS

INCREASED INSIDE CAPACITY
FULL DEPTH PAN-TYPE DOORS
SATIN SILVERED HARDWARE
STRAIGHT BAR-TYPE SHELVES
HEAVY AIR-TIGHT GASKETS
LARGE SELECTION OF SIZES
THOROUGHLY INSULATED—
DRY ZERO

Lower Temperatures

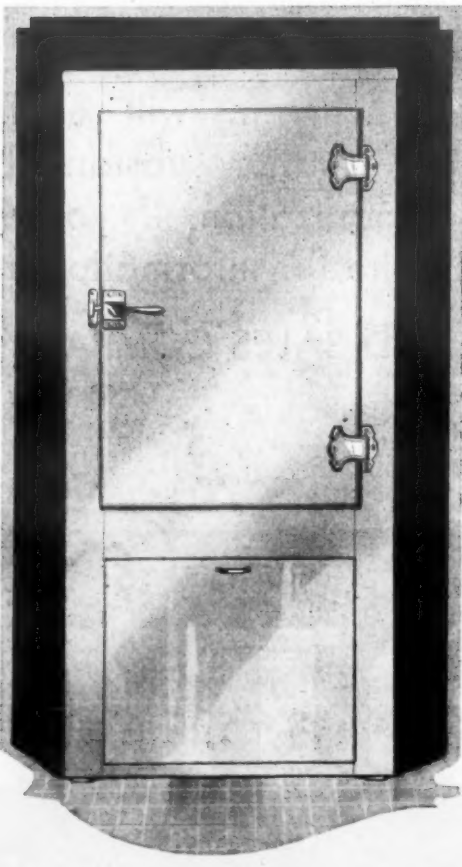
YOU CAN GUARANTEE THESE FACTS*

- 15% Less Operating Cost
- 15% Less Wear and Tear
- 15% Less Servicing Cost
- 15% Less Running Time
- Elimination of Odor Troubles
- Less Freight (30 to 75 Lbs.)

* Established and actual values are published, and can be put in the hands of your salesman. Such authorities as U. S. Bureau of Standards carry instant conviction to the public.

Write for detailed specifications on complete line of models.

ILLINOIS
REFRIGERATOR COMPANY
MORRISON, ILLINOIS



This giant sign greeted the G. E. men at the Hollenden

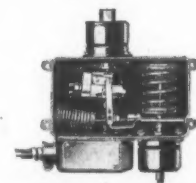
LOW SIDE PRESSURE or TEMPERATURE CONTROL and HIGH SIDE CUT-OUT IN ONE

MERCOID

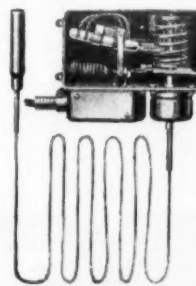
HERE is a new improved Dual Mercoid that has made an instantaneous appeal to refrigeration engineers everywhere. Pressure control or temperature control of the low side and high-pressure cut-out on the high side are combined in one instrument. It is especially adapted for use with Multiple Hook-ups, ice-cream cabinets and general commercial work. It is adjustable over a wide range to furnish "cut-in" and "cut-out" at any desired pressure or temperature.

These controls operate with the well-known Mercoid switch—no exposed arc—no corrosion of contacts—and the control carries full line current, either 110 or 220 volts.

Write today for complete information on these instruments and the Solenoid Valve for water-cooled units.



Model 1BA for low side control by pressure. Adjustable range—any cut-in or cut-out points between 25 inches vacuum and 25 lbs. pressure. High side cut-out—adjustable for pressures up to 160 lbs.



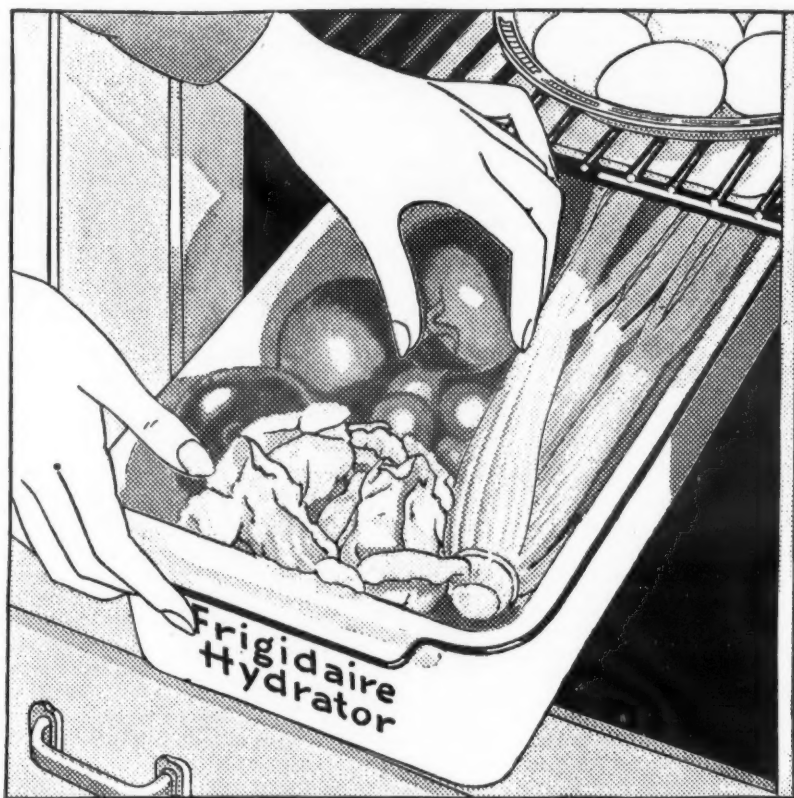
No. 848-K and L for temperature control of liquids and gases, adjustable range—K minus 30° to plus 60°, L—1 from plus 10° to 70°.

AMERICAN RADIATOR COMPANY

Accessories Division, Dept. MER-S
40 West 40th Street, New York, N. Y.

MER-10

Now moist cold and dry cold in the same refrigerator



Frigidaire equipped with the new Hydrator offers an extra service that means more sales for dealers

NOW Frigidaire provides *moist*, reviving cold for vegetables and *dry* frosty cold for meats and other foods—*both in the same cabinet*. These advantages are made possible, for the first time, by the new Frigidaire Hydrator . . . a device offered on no other electric refrigerator.

Prospective buyers are quick to appreciate the advantages of this new improvement. For celery comes out of the Hydrator crisp and brittle. Lettuce takes on a dew-drenched freshness. Tomatoes keep their firmness and flavor. Parsley, cress and other garnishes seem almost to grow again!

And in addition to the Hydrator, Frigidaire gives dealers another important sales aid—the famous "Frigidaire Cold Control" which enables users to speed the freezing of ice cubes and desserts. Nor is that all. Frigidaire has the surplus power that keeps foods fresher—longer. And Frigidaire offers greater beauty. Every household cabinet—even the smallest model—is lustrous rust-proof Porcelain-on-steel inside and out.



But let us give you *all* the reasons why Frigidaire is the world's fastest selling electric refrigerator. Write today for details about Frigidaire and the Frigidaire dealer franchise. Frigidaire Corporation, Subsidiary of General Motors Corporation, Dayton, Ohio.

FRIGIDAIRE

Electric Refrigerators for Homes, Stores and Public Institutions . . . Electric Water Coolers for Homes, Stores, Offices and Factories . . . Ice Cream Cabinets . . . Milk Cooling Equipment . . . Room Coolers



E.T.L. Service for Domestic and Commercial Electric Refrigeration
Testing and experimental laboratory service for Manufacturer, Distributor, Central Station—
Test data exclusive property of client.
ELECTRICAL TESTING LABORATORIES
80th Street and East End Avenue, NEW YORK CITY, N. Y.



Supplement Your Sales

with the **SUPER Automatic Oil Heater**. Its principle of combustion is endorsed by the U. S. Department of Agriculture (see bulletin No. 405). Also by thousands of enthusiastic home owners.

THE SUPER OIL HEATOR CO.
PAWTUCKET, RHODE ISLAND

WINTER MONTHS REVEAL SALESMAN'S TRUE WORTH

THAT winter is the real test of an electric refrigerator salesman is the firm belief of B. C. Duffie, Jr. Sales may come to him in the summer; but it takes ingenuity on the part of the salesman to keep up sales through every month of the year.

Mr. Duffie is city sales manager of the domestic division of Cox & Blackburn, Inc., Houston, Texas. This firm sells Frigidaire and is distributor for this product in fifty southeast Texas counties. The firm began pioneering electric refrigeration in Houston eight years ago with one salesman. There are now sixteen city salesmen for Houston.

"It's always summer time in the kitchen" is the slogan of Cox & Blackburn, and Mr. Duffie adds: "Not only is it always summer time in the kitchen, but the sun is always shining to the salesman who will get out and sell regardless of the winter cold. Our salesmen are made to know that every month is refrigeration month and that their winter sales volume depends entirely upon their willingness to work and upon the right sales argument to be made for winter selling."

"The woman who is a bit doubtful of needing electric refrigeration for the winter months is reminded that although it may be forty degrees outside, her kitchen is kept at about seventy degrees, and that there are few, if any, days when she does not need refrigeration."

Salesmen for Cox & Blackburn are thoroughly trained on winter sales argument. They learn to show the prospect that electric refrigeration has come to occupy a need in the average home just as has the automobile, and that people need refrigeration in the winter just as they need and use their automobiles instead of placing them on jacks

Homelike Setting Sells Refrigerators in Texas



during the winter, as was the practice a few short years ago.

"We find it profitable to maintain our regular sales force throughout the year," continues Mr. Duffie. "In the first place, it would be impractical to train good salesmen, then throw them out of employment during a few months of the year. And it is not good business to keep non-productive men on the payroll. Therefore, they are shown that the only way out is to sell electrical refrigerators twelve months a year. The salesmen of our firm use concrete comparisons to show and convince prospects that a mechanical refrigerator is used more than anything in the home. These salesmen point out that refrigerators are used twenty-four hours of each day, whereas a two hundred dollar radio is probably only used two hours a day, a thousand dollar piano one hour a day, a stove four hours a day, and even the automobile no more than four hours a day on an average."

"Women are told about winter being the favorite time for unexpected guests to drop in. A picture of the situation makes the woman appreciate facilities for keeping a good supply of food in the home during winter months. Other sales points stressed are the elimination of shopping in bad weather and the preventing of outside exposure by using an automatic refrigerator and shopping once or twice a week instead of having to shop daily in any and all kinds of weather."

"We stress the point that electric refrigeration is only health insurance. And for the prospect who budgets his income, or to the one not wishing to pay cash, we show that health insurance in the form of refrigerator payments may be made monthly just as life insurance installments may be made. At such times, we furnish the prospect with authentic figures, proving the great amount of illness caused by impure food. We further quote government statistics, showing that thirty-eight per cent of the average family income is spent for food, twenty per cent of this amount being wasted. Our salesmen do not claim that this twenty per cent can be entirely saved by automatic refrigeration; but they quote actual concrete examples of how friends have made savings to show that much of this twenty per cent will soon pay the cost of the refrigeration unit."

"Many times families think they do not waste foods by improper refrigeration. Just a day ago, a woman told me that she never wasted foods. In reality, she just never threw out foods. She explained that when sweet milk soured, she used it for cooking. When I told her that she could buy sour milk for a third less than sweet milk, she saw things in a new light. Our salesmen watch these little points at all times in showing prospects that buying an elec-

tric refrigerator is a good and economical policy even though there is snow on the ground."

It is pretty generally known in the merchandising field that the way to get close to parents' pocketbooks is through their children. As there is little opportunity to sell the children electrical refrigerators, this firm does the next thing by making the sales appeal of proper refrigeration for the children.

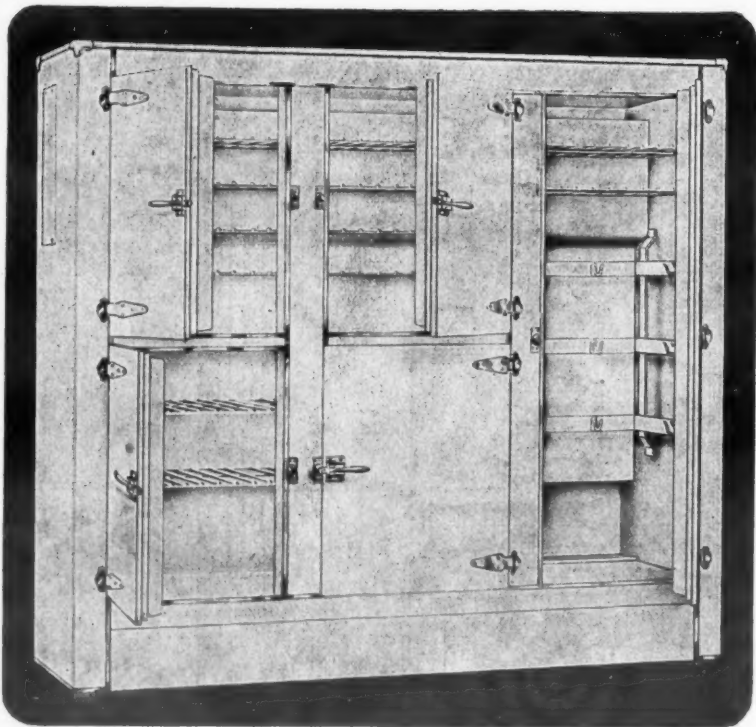
"Direct contact with the prospects' homes during the winter soon brings out whether or not there are children of the family in school," says Mr. Duffie. "And if so, our salesman plays up the need of having better breakfasts and plenty of pure milk for the youngsters. He shows that the children are more subject to colds during the winter, due to the bad weather and resultant lack of exercise, making it all the more important that they have pure foods."

There are weekly sales meetings of the sixteen city salesmen. But Mr. Duffie says: "It's the little 'pep' meetings that we have every morning that count. They get the boys out of bed and on the job during the mornings that have frost in the air. A little round table discussion iron out the problems, helps them get their leads, puts them out determined to get results, and makes every season look alike."

There are no hard and fast rules practiced in the methods of sales contact. Each man is allowed to work as he can produce best. To some extent, however, each man is expected to interview and file a prospect card on a required number of prospects daily. Some of the salesmen find it better to do this by calling from house to house, with no exceptions; others are able to reach their sales quota more easily by ferreting out prospects, working from one tip to another, and just calling on selected houses of each section. The main point is that each salesman is encouraged to do his own thinking and use his own initiative as much as possible in arranging the sequence of his work. He is the one who is held responsible in case of failure, and that fact alone insures careful thinking on his part.

Cox & Blackburn have shown a big growth each year, indicating systematic merchandising. And much of this outstanding success is traceable to the policy of doing creative selling during the winter months to make every month a winner. Mr. Duffie contends: "Any salesman with a high school education, a knowledge of his line, and a determined policy of plugging consistently can sell refrigerators in the winter. Our winter sales do not slump. We have one month of the year that falls a bit short of normal, two months that are above normal, and nine months that are what we call normal, being above our quota."

The Greatest Advancement Ever Made in Commercial Cabinet Construction



Gibson Cold-Air and Balanced-Moisture Control

Gibson balanced-moisture and cold-air control cabinets offer the greatest advancements and most positive method of applying electric refrigeration ever developed for commercial installations.

These cabinets are designed especially for cross fin coil or zero tube cooling, and cold air circulation is forced to every inch of space, positive—continuous.

There is no possibility of conflicting or converging currents to cause dead air pockets or stagnation. Directed circulation is one way and one way only, through the entire food storage area.

Balanced moisture control is another invaluable and exclusive feature of Gibson commercial cabinets. Humidity is renewed and kept constant through the Moisture Control Channel and every corner and shelf of the cabinet receives full blast moisture-laden air at all times, assuring positive food preservation.

Gibson Commercial Cabinets are built in a wide variety of models and finishes to meet the needs of hotels, restaurants and food shops.

These cabinets offer the strongest group of sales features and the greatest operating efficiency known to the industry. Write today for complete information.

Gibson

REFRIGERATORS

GIBSON REFRIGERATOR COMPANY
Electric Cabinet Division
HOME OFFICES AND FACTORIES—GREENVILLE, MICHIGAN

Export Sales Dept., 308 W. Washington St., Chicago, Ill.

They See How Kelvinators are Made



THIS group of New Yorkers, all concerned in selling Kelvinator electric refrigeration, were at the Kelvinator factory recently. Left to right, they are: Ivan F. Brady, Rochester Electric Supply Co.; R. I. Petrie, H. G. Hubbard, Corning; F. Redding, Dansville; A. J. Granger, Perry; E. B. Burr, Hornell, all of the New York Central Electric Corporation, and H. L. Treu, Elmira, of the Elmira Water, Light & R. R. Co. They spent two days inspecting the plant.

In less than 7 months BIRMINGHAM *joins the swing to Electrolux*



NOW BIRMINGHAM SWINGS TO ELECTROLUX. *Finest new homes and apartments of this great Alabama city pick silent, economical gas refrigeration.*

ON THE 15th of May, 1929, there were two Electrolux refrigerators operating in Birmingham.

Before the middle of December—less than seven months later—Electrolux stood in 545 spotless, modern Birmingham kitchens.

The new Highland Plaza Apartments, one of the largest and most beautiful apartment buildings in the South, picked Electrolux for dependable service. Home owners heard about the silence of Electrolux, about its low operating cost—and wanted it. Far-sighted builders of fine apartment houses were quick to grasp the remarkable advantages Electrolux offered in greater tenant-appeal . . . freedom from refrigeration complaints. As a result the finest new homes and apartments in Birmingham are today Electrolux-equipped.

The swing to Electrolux has just begun in Birmingham. Sales continue to mount rapidly. Similar reports of remarkable gains in Electrolux sales are coming in from every section of the country. They prove over and over again that people want the **ONLY** automatic refrigerator that makes plenty of pure, sparkling ice cubes, constant refrigerating cold . . . dependably . . . in perfect silence . . . and at a cost of only 4 to 10 cents a day.

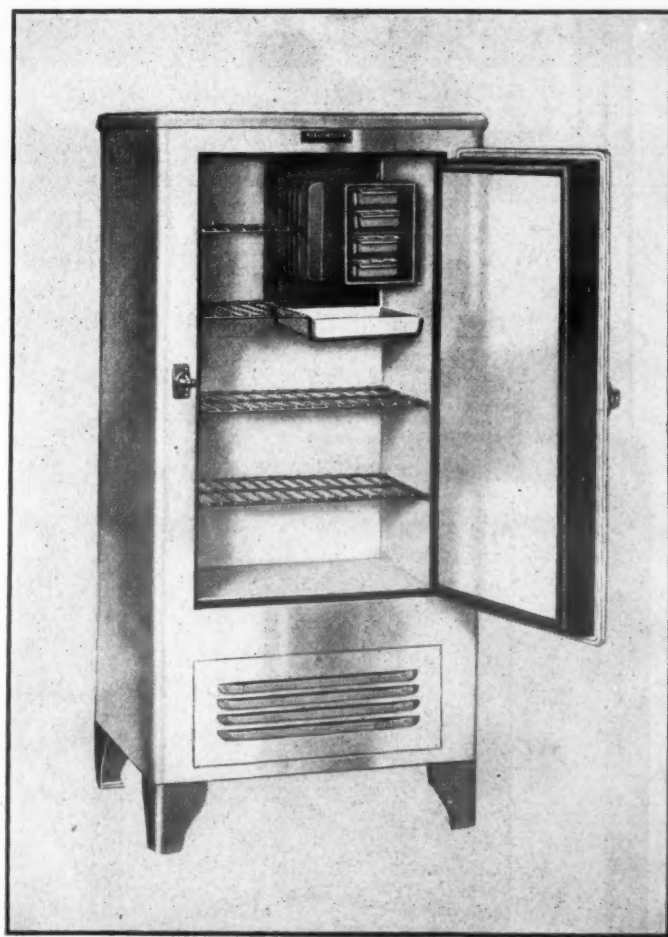
An unusual, arresting national advertising campaign is telling architects, builders, owners and millions of housewives about Electrolux. Every day the demand for this remarkable refrigerator increases. A few desirable franchises are still available. For information, write, wire or phone Electrolux Refrigerator Sales, Inc., Evansville, Ind.

A tiny gas flame takes the



place of all moving parts

NOISELESS . . . AMAZINGLY INEXPENSIVE to operate. These two facts are prime reasons for the great and growing acceptance of Electrolux Gas Refrigerators. Kitchenette Model, one of the most popular sizes, is shown below.



ELECTROLUX

THE *Gas* REFRIGERATOR

QUICK FROZEN FOOD OFFERS NEW FIELD FOR REFRIGERATION

Importance of Adequate Equipment Stressed at Packers' Meeting

Chicago, Ill.—Quick freezing, which, in the opinion of some may revolutionize the meat packing business and other food industries, was discussed from many angles by a number of authorities at the regional meeting of the Institute of American Meat Packers, held Thursday, February 20, at the Stevens Hotel. Nearly 300 persons attended, constituting the largest attendance at any regional meeting which the Institute has held. At another regional meeting in New York on March 6 quick freezing also will be the subject of discussion.

William Whitfield Woods, president of the Institute, presided. The speakers included: C. L. Jones, in charge of research and development for the DryIce Corporation of America, New York; F. B. Green, member Oreole Board of Engineers, Ottenheimer Brothers, Baltimore; A. T. Millott, General Electric Company; R. W. Keyes, Booth Fisheries Company, Chicago; Carl E. Kolbe, Kolbe Freezing System, Chicago; Harden F. Taylor, vice-president for Scientific Research of the Atlantic Coast Fisheries.

The purpose of the meeting, Mr. Woods stated, was "to give member companies of the Institute an opportunity to keep abreast of the developments in quick freezing and to appraise for themselves the various elements in the situation."

He pointed out that about a year ago an Institute committee visited Gloucester and made a report on the Birdseye process and that at the last convention of the Institute R. T. Keefe of the Keefe-LeSturgeon Company and Mr. Birdseye, inventor of the process which bears his name, discussed quick freezing. These reports, he said, had pretty well covered the production of rapidly frozen meats, and, during recent months, interest had centered more on what happens to the product after freezing.

At least four packers and one wholesaler are now engaged in the production of quickly frozen meats, Mr. Woods stated. The rest of the industry, he added, "is observing developments with interest and it is primarily for their interest that this meeting is being held."

A demonstration of quick freezing, in which meat cuts approximately one inch in thickness were frozen in less than fourteen minutes, while the audience asked questions of the demonstrator, was a feature of the meeting. The demonstration was given by C. L. Jones, of the DryIce Corporation of America, using an introductory freezer designed to provide a small and relatively low-

priced freezing unit for packers who may wish to test the possibilities of marketing quick-frozen meats before making a heavy investment.

Quick freezing does not solve "by miraculous ways all of the problems of perishable food production, storage and distribution," but does represent "an important improvement in one particular step," Dr. Harden F. Taylor stated in the course of an address, illustrated at points with lantern slides, which revealed in great detail the experience of the Atlantic Coast Fisheries Company over a period of several years in the application of the quick freezing process to the production and marketing of fish.

"The enterprise of producing and merchandising frozen foods is a long chain of events," Dr. Taylor said, "which must take place between the production of the raw material and its final delivery to the consumer's table, involving many steps, each of which may be done poorly, fairly well, or in an excellent manner, and, in this chain, one bad step may spoil or injure the quality of the goods which have been handled perfectly at every other step."

"Fish or meats may be frozen by the most perfect method," he continued, "and be so handled in storage, transport, or distribution as to reach the consumer in mediocre or poor condition. Yet, the attention of many food industries seems at this moment to be concentrated on rapid freezing—quick freezing, if you please—as something new and revolutionary, which will remake the perishable food industries by its miraculous improvements. It is not new nor is it revolutionary, but it is a better way of doing this one particular step than this one particular step has been done in the past. It may be done for any particular product in any suitable way by any suitable machine, and, in such a machine, efficiency and economy of operation are

(Concluded on Page 33, Column 1)

**Be An
EXPERT in
ELECTRIC
REFRIGERATION**

Learn at home new easy way. Oldest, largest home study electric refrigeration school offers thorough, practical training, endorsed by Servel, Kelvinator, Copeland, Zerzone, and other leading manufacturers. Wonderful pay-raising opportunity for service men; practical help to dealers, salesmen, manufacturers. Special promotion to firms who wish to train staffs. **FREE BOOK** explains everything. No obligation. Utilities Engineering Institute, Dept. 420, 4403 Sheridan Road, Chicago, Ill.

Specify Alaska Cabinets for Electric Refrigeration Units

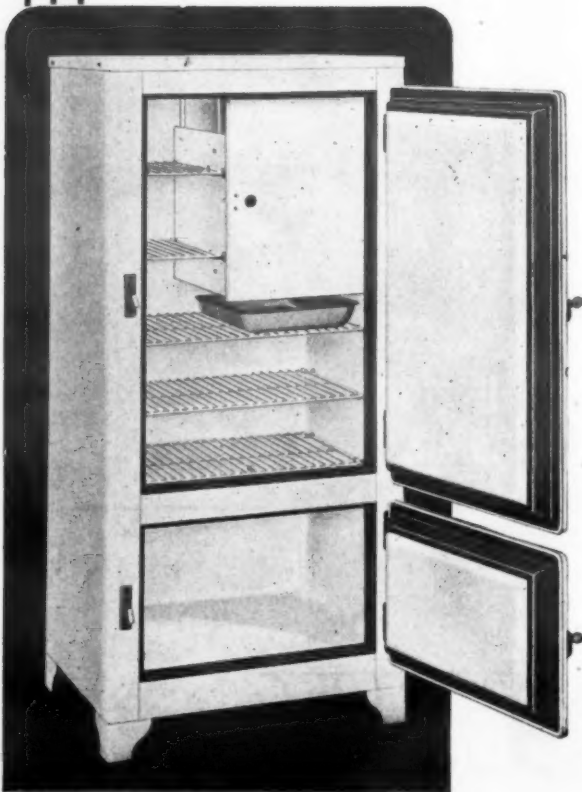
1930 electric refrigeration business will be good. Even though new residence building shows a decrease there is an enormous market in modernizing old apartments and homes with electric refrigeration.

Your customer will be agreeably surprised at the

price for a complete installation including Alaska cabinets.

You will be surprised, too, because Alaska has designed apartment house cabinets to fit nicely in the space formerly occupied by the ice-box, and your salesmen will have their cabinet troubles eliminated.

Give your salesmen this opportunity for increased sales, quicker sales and greater customer satisfaction. Write today for literature for each of your salesmen.

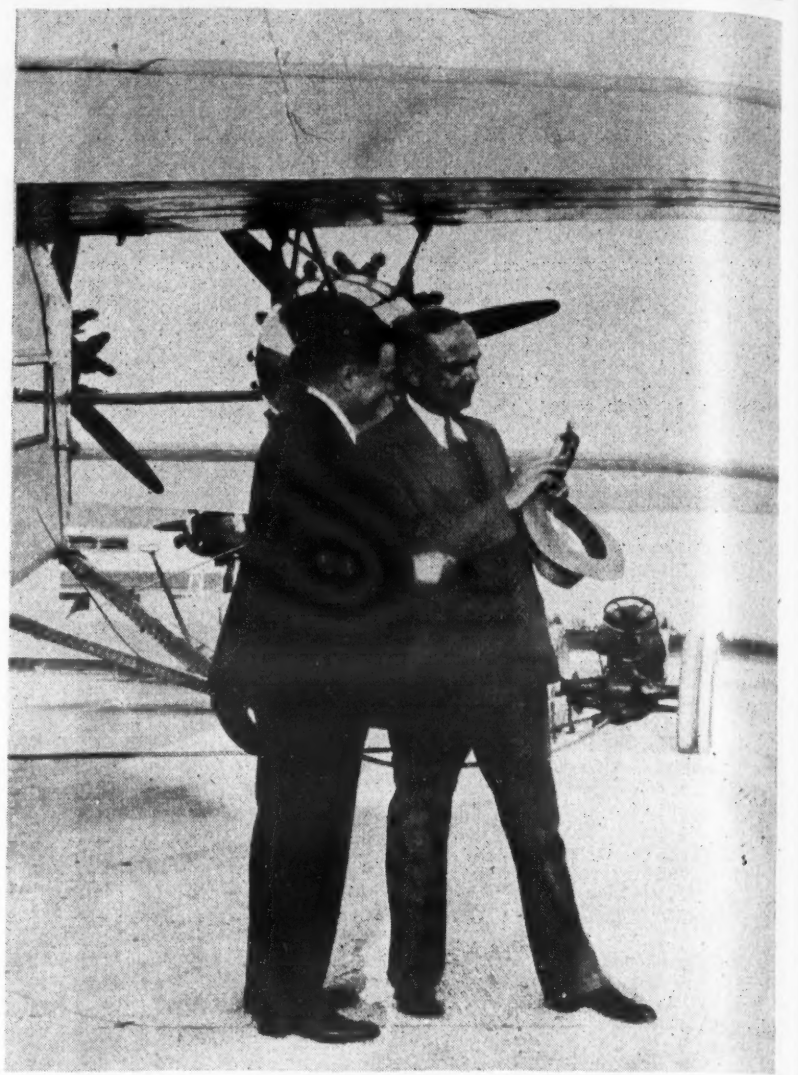


This is one of the extremely popular styles for replacing ice-boxes in apartments and small homes. One and one-half inch insulation, seamless porcelain lined. Food storage capacity, 4 cubic feet net. Your smallest chilling unit will handle this number nicely.

The Alaska Refrigerator Corporation
Muskegon, Michigan

ALASKA
REFRIGERATORS

Kelvinator Officials Fly From Miami to Cuba



G. W. Mason, President, (left) with Campbell Wood

G. W. Mason, president, accompanied by H. W. Burritt, vice-president, of the Kelvinator Corporation, are back in Detroit after a trip south on which they started January 21, visiting distributors at Washington, D. C., Charlottesville, Greensboro, Raleigh, Birmingham, Memphis, Little Rock, New Orleans, Mobile, Jacksonville, Orlando, Tampa, St. Petersburg, Atlanta, Miami, Louisville and Cincinnati.

From Miami, Mr. Mason, accompanied by Campbell Wood, Kelvinator utility director, and Igor Sikorsky, airplane designer, "flew" to Cuba in a Pan-American air liner. The visitors were met at

Havana by Miguel Arellano and Mr. Gorzalez, president and vice-president, respectively, of the Arellano Company, Kelvinator distributors for Cuba. The picture here shows President Mason and Campbell Wood with the big Fokker plane.

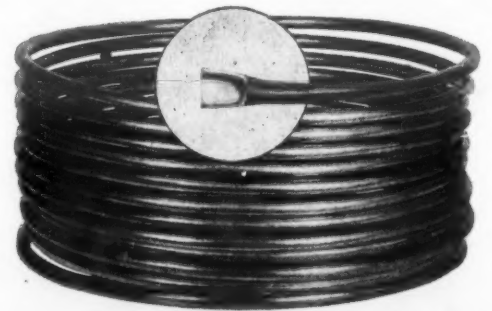
The arduous trip south was also punctuated for a day by a deep fishing excursion aboard the fishing schooner "Evelyn," commanded by Captain Roselle. Messrs. Burritt and Wood accompanied Mr. Mason for the angling off the Miami Coast. Mr. Mason was the only lucky one, he capturing a big sail fish weighing about fifty pounds.

Dehydrated and Sealed Tubing Cuts Time and Trouble

Moisture and scale in the lines are the dangerous enemies of electric refrigeration service. Wolverine solder sealed, dehydrated seamless copper tubing is a quick, economical and lasting answer to the problem.

Wolverine tubing is annealed uniformly, brightly finished inside and out, carefully tested at the factory. It is made to A. S. T. M. Specification (B 68-27T).

Straight Lengths and Coils for Immediate Delivery.



WOLVERINE TUBE CO.
SEAMLESS COPPER BRASS & ALUMINUM

1431 Central Ave., Detroit, Mich.
Phone Cedar 5000

Sales offices in all major cities. Write or phone for name of nearest representative.

A NEW McCRAY Porcelain Inside and Out ▶▶▶

WANTED

Salesmen and distributors who can see the profit possibilities in the complete McCray line of refrigerators and display cases for every commercial need are invited to write for details about several openings now available. No obligation; get the facts about these opportunities NOW!

GLEAMING WHITE porcelain inside and out, impressive beauty of line, blue-gray trim, finest modern hardware—these details give a hint of the beauty of the new McCray No. P332, one of a series of All-Porcelain Refrigerators for Hotels, Hospitals, Restaurants, Schools, Institutions.

In design, in workmanship, in finish, the new No. P332 amply measures up to the high standard of construction established by McCray and maintained for over 40 years. Quality in every hidden detail marks this new series of refrigerators.

The walls are 5 inches thick, heavily insulated with 4 inches of pure cork-board, sealed with hydrolene. Staunch construction throughout. Shelves electrically welded. Fasteners of latest self-closing type. Special compartment at the right for a stock of meats. It may be used with ice or mechanical refrigeration of any type.

For Use with Any Machine

THE McCRAY No. P332 is built for mechanical refrigeration of any type. No changes are necessary.

Whatever type machine is used, the sterling in-built quality which has char-

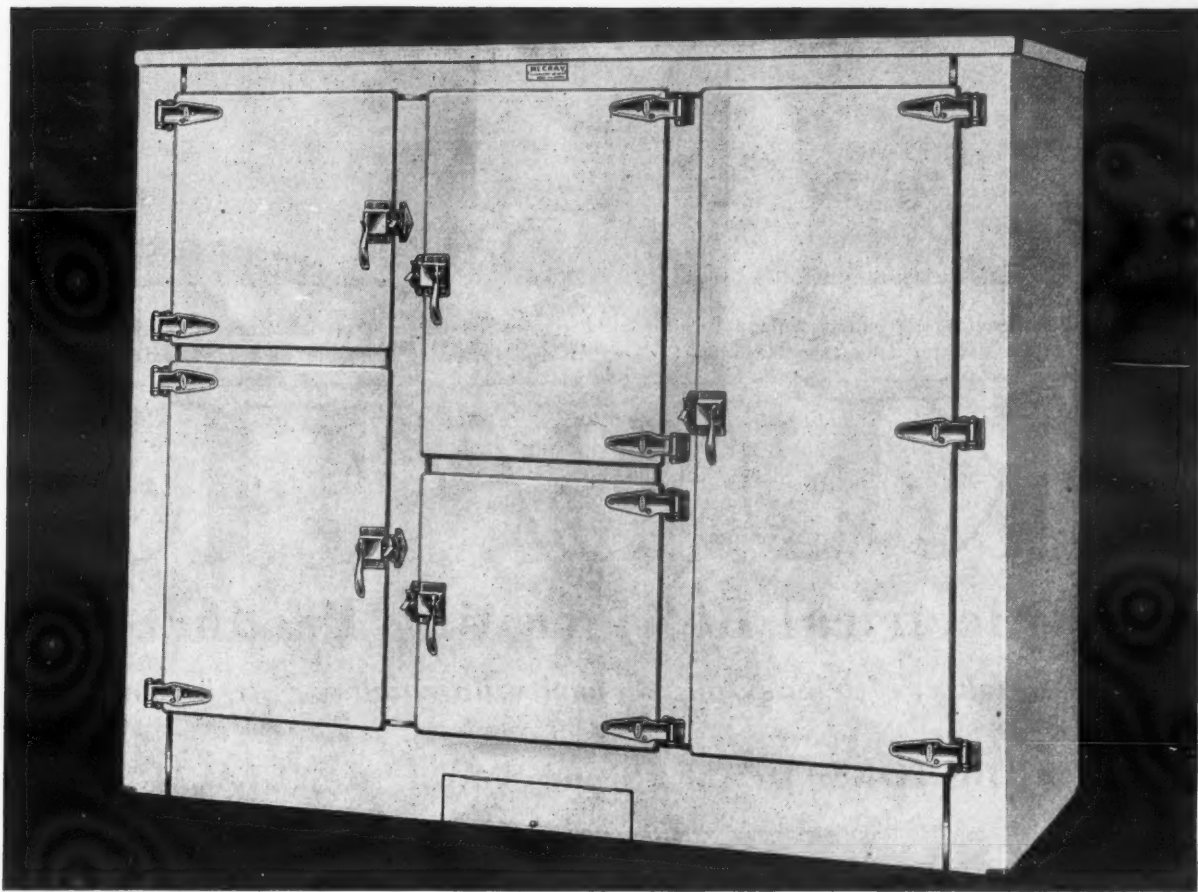
acterized the name McCray for 40 years, is a guarantee of the most satisfactory performance. This is of special interest to dealers in mechanical re-

ALL McCRAY MODELS
MAY BE USED WITH
MECHANICAL
REFRIGERATION OF
ANY TYPE

frigeration as the right equipment is necessary for a successful installation.

McCray is the world's largest manufacturer of refrigerators for all purposes. Dealers in machine refrigeration should get the facts now regarding the McCray line. Write for catalogs. No obligation, of course.

McCray Refrigerator Sales Corporation, Dept. 66, Kendallville, Indiana. Salesrooms in All Principal Cities. See telephone directory.



McCRAY

WORLD'S LARGEST MANUFACTURER OF
REFRIGERATORS FOR ALL PURPOSES

REFRIGERATORS

Copeland Provides Cool Water Storage in Household Refrigerators



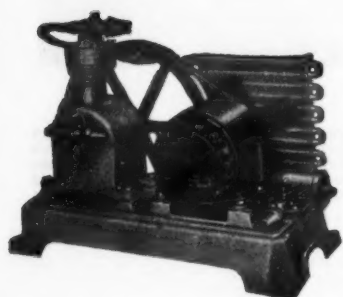
In deference to the public demand for increased service from electric refrigerators, Copeland has added a water tank that takes up little room and furnishes a supply of cooled water.

KULAIR

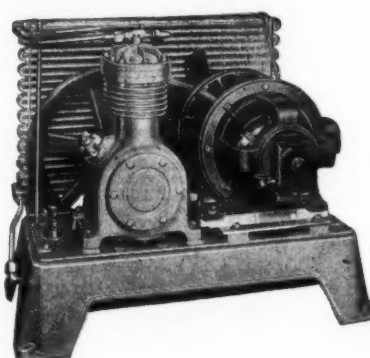
Electrical Refrigerating Products

Simplicity, quality, efficiency and capacity unequalled. A size for every use

DISTRIBUTORS, DEALERS and SMALL MANUFACTURERS



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PRODUCTS ARE SUITABLE TO
Sulphur Dioxide, Methyl Chloride
Butane or Iso Butane
KULAIR
CONDENSING UNITS
Available in 22 sizes from 90 Lbs. to 2500 Lbs. I. M. C.
Air and Water Cooled are Applicable to Every Requirement, Commercial, Multiple, or Domestic



KULAIR

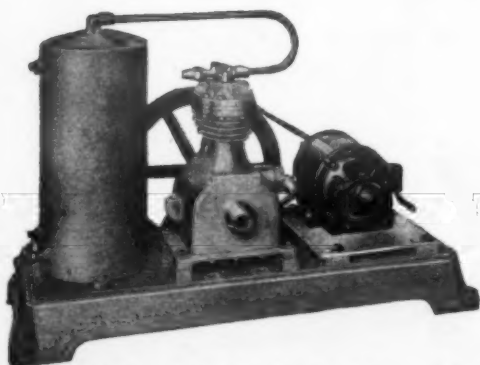
Is the originator of the direct factory policy, allowing the distributor or dealer the privilege of attaching his own name plates, advertising and selling
UNDER PRIVATE NAMES

at prices fixed by him with choice of refrigerant to suit local demand.

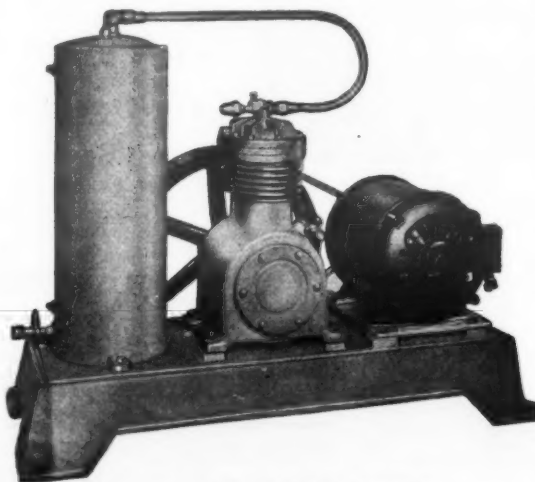
We are also the Manufacturers of the Famous Line of

Franklin
AIR COMPRESSORS
AND EQUIPMENT

For Automotive
Paint Spraying
And Industrial Uses
**THAT'S WHY
FIFTEEN YEARS
OF COMPRESSOR
BUILDING
TELLS US HOW**



Water Cooled Condensing Units
400 to 1000 Lbs. I. M. C.



Large Water Cooled Condensing Units
1000 to 2500 Lbs. I. M. C.

Kulair Refrigerating and Business Engineers are Leaders in the Industry. Policies, Products and Prices have proven to every one of our connections that the Distributor, Dealer, Assembler and Customer makes money by the advertising and merchandising advantages offered by our plans.

Write For Full Information

KULAIR CORPORATION PHILADELPHIA, PA.

Three Water Cooling Methods Now Dominate the Field

Herbert C. Kellogg
Liquid Cooler Corp.

THERE has been rapid development in liquid cooling, and three methods of cooling are quite generally used in this field. The cooling of liquids, principally water for drinking purposes, is an exceptionally interesting problem and one deserving of expenditures in research and development. The importance of providing correct temperature drinking water to human beings in all walks of life is known and accepted. In addition to the acknowledged demand for this type commercial equipment, the problem is interesting from an engineering standpoint, as a great amount of heat must be transferred in the cooling of a liquid. The transfer of 250 B. t. u. is required to cool a gallon of water from 80° to 50°, and as a single drinking jet will accommodate a sufficient number of persons to drink and waste 20 gallons of water per hour, it will be seen that the compressor must be able to transfer approximately 5,000 B. t. u. per hour, which is a comparatively large size unit considering the application of a single cooler fountain.

The Older Methods

Before the advent of fractional horsepower compressors, practically all cooling was accomplished by central plants circulating the cooled water to the points of use, or by the use of ice in individual coolers. The perfection of the small compressor has, however, been followed by the development of small capacity coolers, ranging from the self-contained office type of two to five gallons an hour capacity, to designs capable of handling 100 gallons an hour, or the multiple type system using individual cooling units placed at the desired locations and connected in multiple to one remote compressor.

In the discussion of liquid cooling and in this comparison of the three types, it is important to know something of the relation of surface films to the problem. Data on the subject will show that from 95% to 98% of the pressure or power (which in this case is temperature difference) to transfer heat is utilized in penetrating or passing through films on the surface of the containers or tubes of the design. Stated in another manner, these films, either liquid or gas, constitute a very great percentage of the total barrier preventing a free and rapid flow of heat from the liquid to be cooled to the liquid refrigerant in the low side. Such films, gas or liquid, as the case may be, are held in a very thin stationary layer on the surface. Water in itself is a very poor conductor of heat as a comparison with brass (water 4, brass 700) and when not in motion allowing a transfer of heat by convection is an excellent non-conductor.

The metal walls in the heat flow path can practically be ignored. There is but a slight difference in results whether the metal wall be of silver .010" in thickness or pure tin 1/16" in thickness. The problem in efficiency of design is primarily one of a minimum number of films or a reduction in the effectiveness of the unavoidable films. The effectiveness of films to retard the passage of heat is considerably reduced with an increase in velocity of the gas or liquid contacting the surface.

Coolers in use today can be divided into three general types, and for purposes of reference they are called: (1) The indirect type, employing a refrigerant coil and a water coil immersed in a water bath; (2) The storage type, employing an evaporator immersed in a considerable quantity of water to be used, held in storage; (3) The direct type, using a comparatively short water coil immersed directly in the liquid refrigerant of the low side.

Indirect Type First

Indirect type cooler: The indirect cooler was the first to appear in general use and is of a design employing a means of heat transfer through a water bath by convection. Let us first

follow the path of heat transfer in this design. Both coils, namely (A), containing water at a comparatively high temperature, and (B), containing refrigerant at a constantly low temperature, are immersed in a bath of sweet water. The heat in passing from water to refrigerant encounters four films, namely, inside and outside of coil (A) and outside and inside of coil (B). Two of these films, namely, on the outside surface of either coil, are exceedingly effective in retarding the passage of heat. The other two films, on the inside surface of either coil, do not retard the passage of heat to an equal extent. This is due to the fact that the inner films are continually agitated during the periods of heat transfer, one by boiling liquid refrigerant and the other by a comparatively rapid flow of water.

The heat must also be carried across the space between the two coils. This transfer is accomplished by the water bath. It has been pointed out that water is a very poor conductor of heat, so much so, that this type system would not be practical if the water in the bath remained stationary. The water in the bath, however, is free to move from one coil to the other and will move in the direction indicated by the arrows when the mass surrounding (A) coil becomes higher in temperature than that surrounding (B) coil. In practice it is necessary that there be a considerable temperature difference at different locations in the water bath before convection will be set up to transfer the heat. The water bath in this system, with its two surface films on the outside of the coils, constitute fully 90% of the total retarding factor in rapid transfer. It should be noted that in order to transfer heat in this system it is first necessary that the water bath surrounding the water coil be raised in temperature above that of the average bath temperature. This condition does not so much affect the overall efficiency of this type as it does the rapidity of heat transfer, which is important in maintaining constant exit temperatures. This point will be discussed later in this article.

Indirect System Needs Space

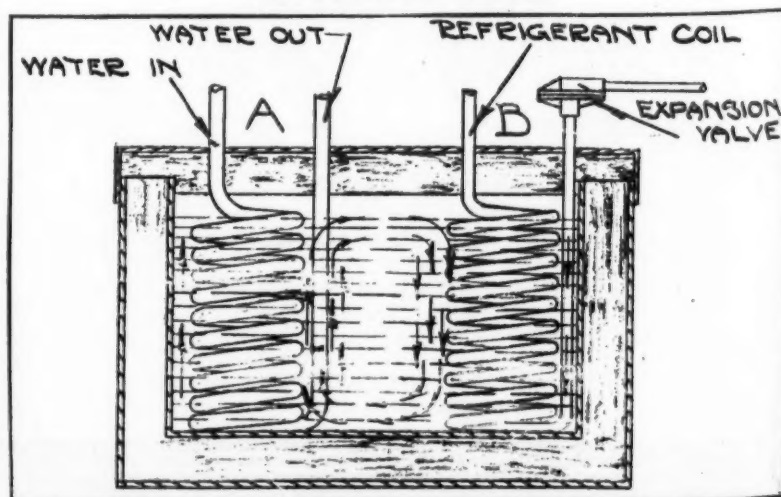
The indirect system requires considerable space, as the two coils must be maintained apart and the length of coil or coil surface employed is considerably greater than that needed for other systems. It is possible with this system to build up a considerable ice formation on the refrigerant coil, which, of course, has the effect of supplying refrigeration in excess of the compressor capacity over short periods of time. The operation of the cooler under these conditions will result in a very decided change in exit temperatures, depending entirely upon the rate of draft.

Storage Type Variations

The storage type: There are numerous modifications of storage type systems or those designs which utilize a storage of cooled water in conjunction with a cooling means. This article mentions one type only, which is now in general use. The evaporator (A) may be any standard type, flooded or direct expansion, placed in the water to be cooled. The heat flow path of this design encounters two films, namely, inside and outside of the evaporator shell.

The film in contact with the water storage is similar to either film on the outside of the coils in the water bath of the previous mentioned system. This outside film is considerably more resistant to the passage of heat than the inner

THE INDIRECT SYSTEM



film, due primarily to the low capacity of the water in contact. Again, with this system it is necessary to create a considerable temperature difference in the storage of water surrounding the evaporator before convection is set up to cool the entire mass in the storage. It will be noted that the water entering the storage or cooling compartment is free to mix with the stored water previously cooled. Consequently, it may be expected that exit temperatures will vary with an increased intermittent or continuous draft.

This type cooler is ideal when used where a definite periodic draft is desired or where there may be idle periods long enough to allow all of the water to be cooled to the desired temperature. A considerable quantity, depending on the storage capacity, can then be drawn over a very short period. Unless the water entering the storage is allowed to remain a sufficient period of time to be cooled by convection, there cannot be a definite control of temperature under intermittent varying loads. It has the advantage, however, of allowing short periods of excessive draft over that which may be drawn continuously. The water previously cooled and held in storage creates a condition whereby the exit temperature rise is considerably retarded.

The direct type: A type of cooler employing a comparatively long passage through which passes the water to be cooled, and, as shown, consists of a coil which is directly associated with the liquid refrigerant in the evaporator. The coil is either immersed in a quantity of low pressure refrigerant, or the evaporator may be a tube having a second tube either outside or inside of the evaporator tube through which the liquid to be cooled passes. This type has only a single metal wall between the liquid refrigerant in the low side and the liquid to be cooled. The liquid to be cooled flows in a definite predetermined path. The heat encounters two films in this cooler, namely, on the inside and outside of the tube. Both of these films are agitated either by the boiling condition of the refrigerant, or high velocity of the liquid cooled.

As the B. t. u. transfer is increased by a greater temperature difference, this type of cooling affords a very rapid transfer in the section of cooling coil near the entrance liquid. This temperature difference gradually decreases as the cooled liquid approaches the exit of the cooler. If sufficient coil or cooling surface is employed in relation to the velocity of the cooled liquid and the heat to be extracted, the exit temperature may be expected to closely approach the temperature of the liquid refrigerant surrounding the coil.

The liquid to be cooled is conducted in a definite path contacting a known amount of surface, and as the B. t. u. transfer between the liquid to be cooled and liquid refrigerant is known, this cooler is of a type which can be accurately designed to meet existing conditions of cooling on any given application.

Three Systems Compared

In comparing these three systems, I might set up a phantom cooler incorporating elements of design which would give perfect results. Six points, with a short explanation of each, follow, which are of importance to ideal operation:

1. Accurate Regulation of Exit Temperatures. Exit temperatures can only be accurately controlled by an adequate cooling capacity of both cooler and compressor and a rapid heat transfer.

2. A Short Unrestricted Heat Flow Path and Rapid Transfer Per Unit of Surface. This point must definitely affect the control of exit temperatures. If the transfer is slow or the heat flow path long, considerable changes of temperature in the liquid refrigerant would not materially affect the exit water temperatures. If the cooler design is of a type which must maintain a considerably lower refrigerant temperature than exit liquid temperature under idle periods or minimum use, the exit temperature may closely approach the liquid refrigerant temperature. On the other hand, if the design is such that the exit temperature is maintained at approximately the temperature of the liquid refrigerant, a control of the liquid refrigerant temperature will also definitely control the exit water temperature.

3. Exit Temperatures Corresponding to That of the Liquid Refrigerant in the Low Side. Where it is desired to obtain exit temperatures of 50° and the liquid refrigerant temperature could also be held at 50°, one would of course, be obtaining 100% of the available capacity of the compressor in use. The capacity of a compressor of any given bore and stroke, to transfer heat, is proportionate to the suction pressure or density of the gas pumped. A given compressor capacity is doubled when operating at a 50° low side over that when operated at a 20° temperature. Consequently, it is an advantage to design the cooler to be operated at a high suction pressure. The advantage to be gained is a reduction in initial cost for a given installation. Operating costs are also reduced, as the electric current consumption does not increase proportionately with an increase in suction pressure.

4. Safety Against Damage by Freez-

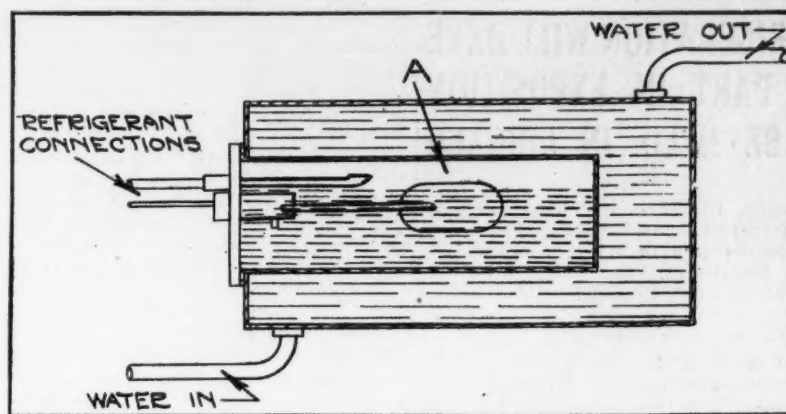
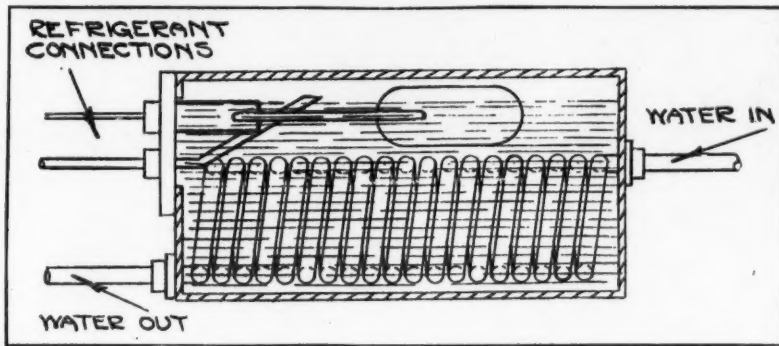
ing. Designs should be such that even though the controls or safety devices should fail to function, no damage would result to the cooler if frozen solid repeatedly. There is the possibility of freezing with all type coolers. The design should be such as to safeguard against the possibility of contamination of the drinking water.

5. Minimum Refrigeration Losses to the Atmosphere. Insulation should be adequate. Surfaces which must be insulated should be minimized as far as possible. Cooler temperatures should be maintained as high as possible so that the temperature difference between air

and the cooler itself is not too great.

6. Minimum Materials and Manufacturing Cost. Light weight, simplicity of design and minimum materials have a direct effect on heat losses and tend towards low production cost and volume sales.

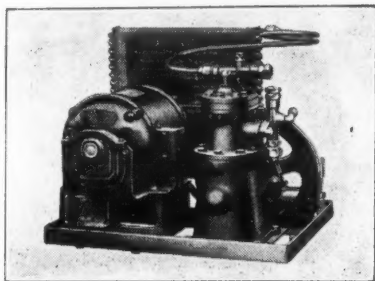
The electric refrigeration industry is becoming more and more interested in liquid cooling. The demand for this type equipment is rapidly increasing. We may rightfully expect lower prices and improved designs, assuring fulfillment of exact requirements of the user as to capacity, temperature control and general appearance.



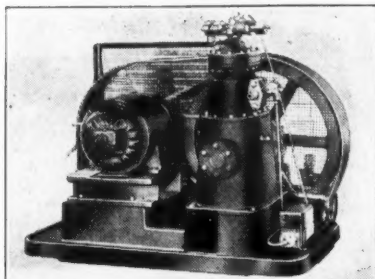
The direct and storage types of water cooler are shown, the direct at the left and the storage above. Both of these types, as well as the direct type shown in the diagram on the opposite page, are in use in office buildings, factories, public institutions and other structures where a constant supply of properly cooled water is desirable.

No changes just for the sake of changing!

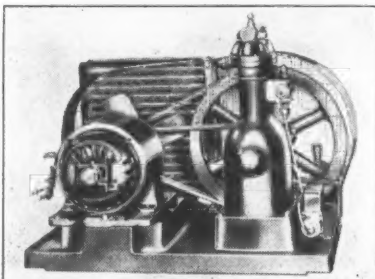
5 new Commercial Machines



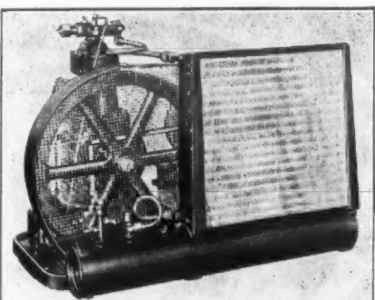
the 24-C machine (Air-cooled)



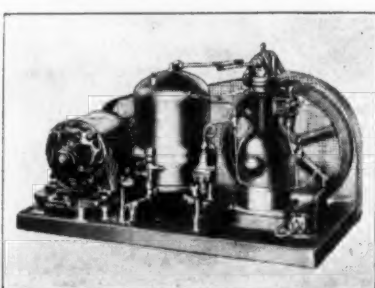
the 100-A machine (Air-cooled)



the 65-A machine (Air-cooled)
Also 65-AW (Water-cooled)



the 75-A machine (Air-cooled)



the 50-BW
machine
(Water-cooled)
Also 50-B
(Air-cooled)

SERVEL dealers are fully protected from the radical changes in design that upset retail sales plans so seriously.

Inventories are smaller . . . are maintained according to actual selling requirements. No danger of obsolete equipment to be sacrificed whenever new "yearly" models appear.

Improvement in Servel models is constant but conservative. Changes are made only when they are proved a real advance.

New models when you need them

The Servel line is increased by the addition of new models whenever a real demand for them is shown.

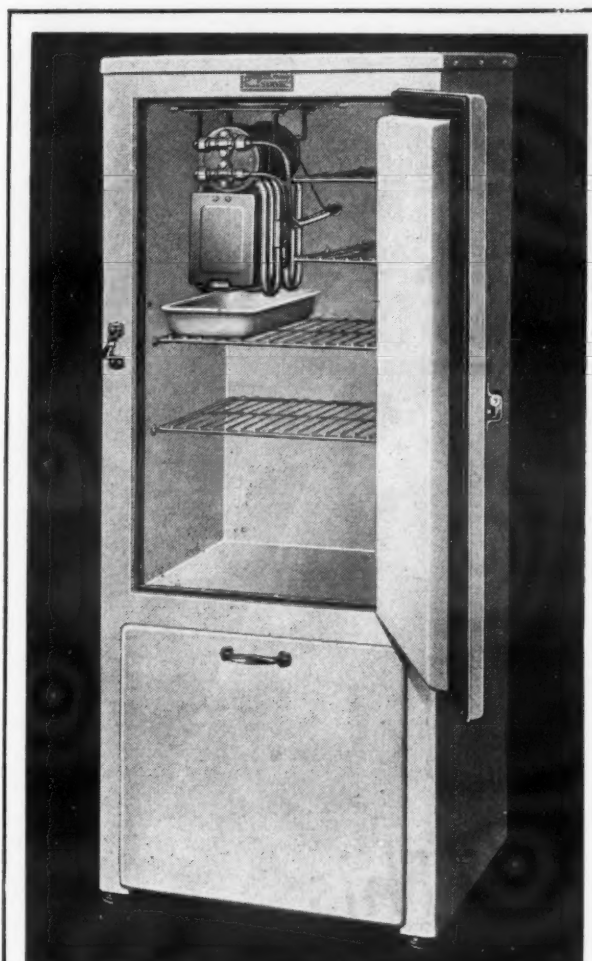
The new JS-4 with 4.4 cubic feet of storage space was perfected in order to give Servel dealers a strong leader at a remarkably low price.

The Commercial Series has been augmented with 7 new refrigerating units and 3 new water coolers.

Now you can offer each customer the installation that meets his requirements precisely. It's never necessary for him to buy an over-size unit at a higher price and costing more to operate.

This Franchise protects your profits

The Servel Franchise is set up on a basis that



The JS-4

built to a standard of quality
. . . not to a price!

This splendid new model is the latest addition to the Servel Domestic series . . . with 4.4 cubic feet capacity and 8.52 square feet of shelf space.

safeguards the interests of every Servel sales outlet . . . and insures a steady succession of profits from the two great Servel Series, Domestic and Commercial.

If you are prepared to take full advantage of the profit possibilities, write us and learn whether the Servel Franchise is still available in your territory.

SERVEL SALES, INCORPORATED
Evansville, Indiana

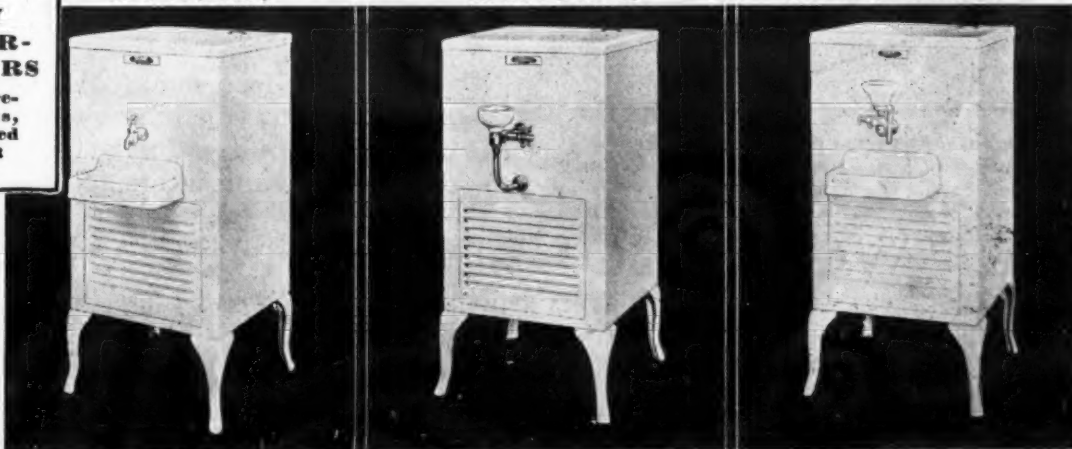
SERVEL

3 NEW WATER- COOLERS with a tremendous, untouched market

the WC-5 (Faucet)

the WC-5 (Bubbler)

the WC-5 (Combination)



REFRIGERATION WILL HAVE BIG PART IN EXPOSITION TO BE HELD IN CHICAGO

Chicago, Ill.—The march of progress in refrigeration and food preservation is to be depicted in a series of exhibits to be featured in the Chicago Health and Educational Exposition, which will be held in the Chicago Coliseum from May 17 to 25, inclusive.

This show, a newcomer to the ranks of Chicago's big parade of perennial expositions, will be staged under the auspices and direction of the Chicago Medical Society, the Chicago Dental Society, the Chicago Health Department, and the Illinois Federation of Women's Clubs.

Aiming at two targets—the education of parents in regard to rectifying health defects in Chicago's school children, and the health promotion of Chicago's industrial and commercial armies—the exposition will be thrown open to certain health-serving industries and commercial groups for displays of their products.

The Illinois Federation of Women's Clubs is sponsoring the sale of tickets. Every clubwoman in the city will sell tickets to the exposition, thus insuring a record turn-out, according to W. H. Mann, executive chairman of the enterprise.

Employers will also be thoroughly canvassed, Mr. Mann says. The exposition chairman hopes to sell blocks of tickets to institutions for their employees, with the idea of increasing employee efficiency.

Refrigeration exhibits will deal with the latest methods of food preservation. Historical studies in the progress of refrigeration and food preservation will be especially welcomed.

Co-operation of the refrigeration industry as a whole in the building of

their exhibit is suggested by Chairman Mann. Individual concerns will be free to submit exhibits, of course, but collective planning and execution of the refrigeration section will be necessary, Mr. Mann says.

In addition to the refrigeration exhibit, which will occupy the northmost section of the Coliseum, there will be expositions of dairy products, meats, and kindred food industries. The Chicago Health Department will be responsible for a sanitation exhibit.

A baby show and contest is to be one of the featured attractions of the exposition. Lectures by noted health authorities from all parts of the nation, pageants, and theatricals of various kinds are also contemplated.

EASTERN ROLLING MILL TO MAKE SHEET STEEL FOR REFRIGERATORS

Baltimore, Md.—The Eastern Rolling Mill Company will begin early in March to manufacture sheet steel for use in making refrigerators, office fixtures and furniture, thus diversifying its production and strengthening its position in the steel industry. Heretofore the concern has depended almost entirely upon the automobile industry as the outlet for its product. The consistent growth of the refrigeration industry offers the company the possibility of increasing its production by manufacturing sheet steels for use in the construction of refrigerators.

Alterations to the plant designed to manufacture the new type of sheets have been under way for several months, and it is understood they will be completed in time for the new unit to go into operation early in March. The estimated costs of the improvements is \$320,000, but may reach \$350,000. The addition is being financed out of accumulated surplus.

Kelvinator Cast for Stellar Role in Lobby Display in Florida Theatre



Jacksonville, Fla.—Kelvinator - Kimball, Inc., recently put a De Luxe Kelvinator in the main entrance and lobby of the Florida Theatre as a part of a food demonstration which attracted thousands of visitors.

The Kelvinator stood out in the display, and became the source of numerous questions. A novel attraction of this exhibit was a locomotive auto around which the crowds milled to hear the radio loud speaker with which it was equipped.

play, and became the source of numerous questions. A novel attraction of this exhibit was a locomotive auto around which the crowds milled to hear the radio loud speaker with which it was equipped.

LINDSAY CO. LEASES NEW QUARTERS FOR SALE OF FRIGIDAIRE

Milwaukee, Wis.—The Lindsay Automatic Refrigeration Co., 70 Reed St., representatives for Frigidaire here, has leased the store space in the Colby-Abbott Bldg., Milwaukee and Mason St. The premises are now being remodeled and the Lindsay Company is to take possession May 1st. Its lease is for three years with extension privileges.

In its new quarters the company will have about 3,000 square feet of floor space. The store has a frontage of 38 feet on Milwaukee St. and 67 feet on Mason St. The Lindsay firm plans to make this a model showroom, displaying both household and commercial equipment, as well as water cooling equipment for offices. Offices and service departments will also be housed here.

TULSA APARTMENT GETS 28 G. E. UNITS

Tulsa, Okla.—The Ahrens Supply Company, local dealers of General Electric refrigerators, report the installation of twenty-eight General Electric units in the Lorraine apartments, at Eleventh and Denver streets.

COPELAND UNIT ENROUTE TO WILDS OF BENGAL

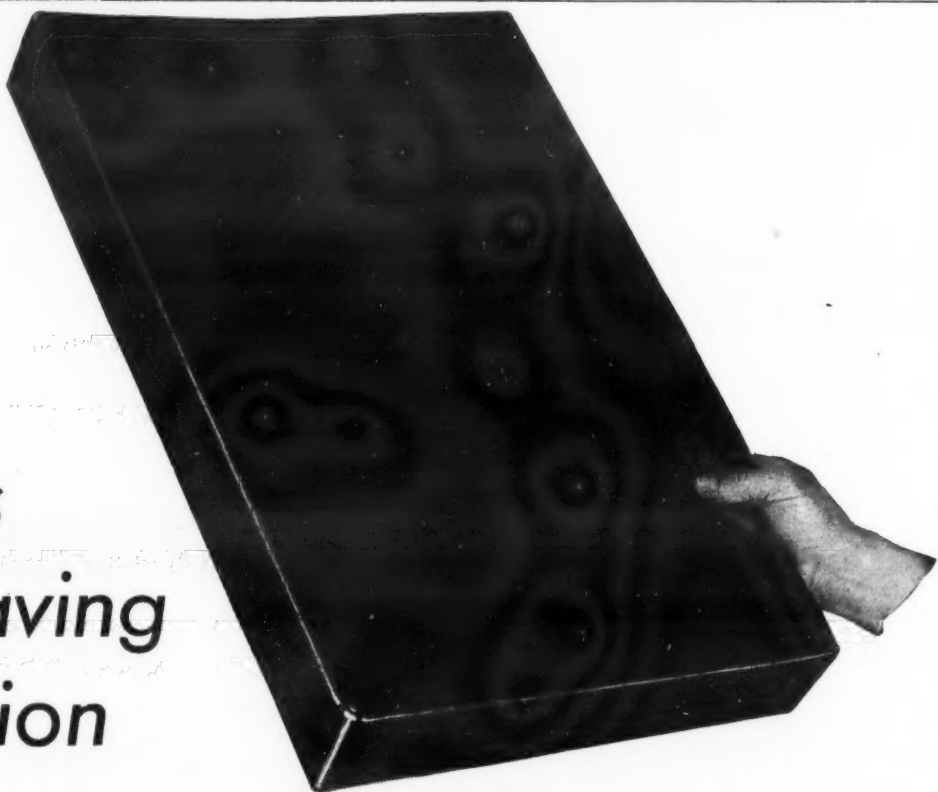
When one of the Rockefeller Foundation field staff men sailed recently for India, one piece of his luggage was a Copeland electric refrigerator, an A-5 special porcelain model of the domestic type. Another piece of luggage was a box of tools for the cabinet's installation. The refrigerator will end its travels at Bangalore, Bengal, 500 miles west of Madras, and undoubtedly is the first household product of its type to find a home in that region. The Rockefeller engineer's selection of a Copeland was with the aid of the H. M. Robins Co., export distributors for Copeland, after a lengthy course by mail on installation and the possible operation problems likely to be met in a jungle country boasting more tigers than mechanics.

BAIRD CO. ORGANIZES

Boston, Mass.—William F. Baird Co., Winchester, Mass., has been organized to manufacture, install and distribute refrigeration equipment. William F. and Elinor N. Baird, and Charles L. Hanon, all of Winchester, are incorporators of the company.

KELVINATOR FOR LINER

New York, N. Y.—Just before the big Cunander S. S. "Franconia" sailed on a world cruise the New York Kelvinator branch installed in her hospital a U4P Kelvinator. The sale was made by Charles Purdy.

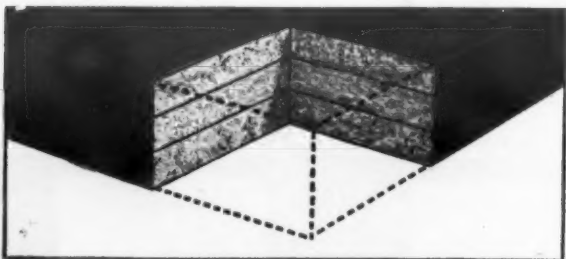


This labor saving insulation

BALSAM-WOOL SEALED SLABS

...made especially for Mechanical Refrigerators

WITH one single Balsam-Wool Sealed Slab you can insulate the top, side, bottom or back of a refrigerator, regardless of area! Eliminates patchwork! Saves labor! Made to any length, breadth,



This actual photograph shows the rugged construction of Balsam-Wool Sealed Slabs, hermetically sealed, wrapped in tough waterproof paper

thickness. Highly efficient. Light weight. Rigid enough for easy handling. Flexible enough to fit snugly!

And once in place, Balsam-Wool Sealed Slabs are there to stay! Hermetically sealed—they are vermin-proof, water-proof, will not rot, sift or settle.

Their average conductivity does not exceed 6.0 B.t.u. per square foot, per inch thickness, per 24 hours, per one degree Fahrenheit temperature difference.

Write for free sample Balsam-Wool Sealed Slab. If you desire, our engineering staff will aid you in planning highly efficient mechanical refrigerators.



WOOD CONVERSION COMPANY

Mills at Cloquet, Minnesota

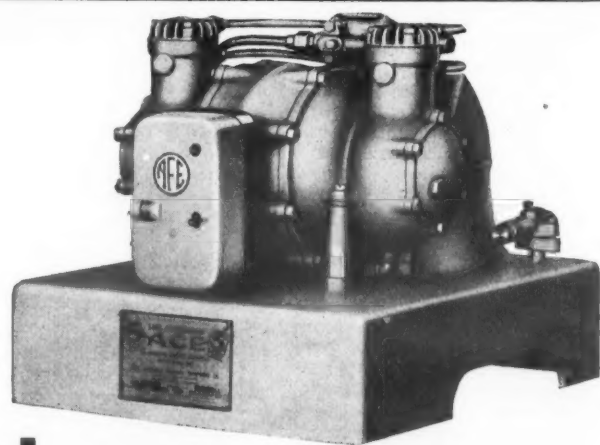
Industrial Sales Offices:

360 N. Michigan Ave., Chicago

3107 Chanin Bldg., New York

3084 West Grand Blvd., Detroit

Manufacturers of Balsam-Wool Insulation for Domestic Refrigerators, Motor Buses and Airplanes; Balsam-Wool Refrigerator Car Insulation and Steel Passenger Car Insulation; Balsam-Wool Standard Building Insulation



a NEW Standard of Electric Refrigeration For Commercial Use

With only 8 moving parts, no belts, gears, idlers, stuffing boxes, and a mechanism fully enclosed, hermetically sealed, self-oiling and air-cooled—these are some of the exclusive features which mark the American Ace condensing unit.

The American Ace is small, compact, occupies about half the usual space, costs less to operate, maintains constant temperatures, requires no attention or upkeep.

Dealers are requested to write for complete information regarding the American Ace. Excellent sales opportunities now open in good territories. Write today.

REFRIGERATION DIVISION

THE AMERICAN FOUNDRY EQUIPMENT CO.
MISHAWAKA, INDIANA

STIMULATES SALES FORCE IN ROUND TABLE SESSION

By Archie Richardson

"MRS. B. wants an electric refrigerator, her husband can afford to give her one, and we are able to show that the money he is now paying for ice will make the purchase of one of our machines a mighty good investment, to say nothing of the benefits the whole family will get out of it. Yet we haven't been able to sell him. Why?"

That is the composite of many questions asked at the morning meeting that begins the day's work for the salesmen of the Domestic Electric Company, Mobile, Alabama, and in searching out the answers through a round table discussion, a higher order of salesmanship is being developed among the young men who are carrying the company's product into the homes of the city.

Starting out on the day's work, each salesman names three of the best prospects he expects to try to close during the day, and at next morning's meeting he tells how he went about trying to sell each, and the results obtained.

Take a case in which he failed to get the order. He outlines what previous effort has been made to sell, and gives a detailed account of his interview. He tells how and under what conditions he approached his prospect, what was said on both sides, the arguments he put up and how they were met, and his opinion as to why the sale was not closed.

Then the other salesmen present are asked to give their views, with suggestions as to how the prospect should have been handled and how the antagonistic arguments could have been successfully met and overcome. Finally, they give their opinions as to why the sale had not been closed, and make suggestions as to how they would go about making the sale.

By the time the several salesmen have had their say, the man whose case is under discussion has found many defects in his methods that would never have occurred to him but for the discussion; little mistakes that he would have gone on making and thereby losing sales, but which he is now in position to remedy.

The other salesmen, likewise, have benefited, for many of the mistakes brought out are the ones that they themselves make. And in case they have run into similar objections that they have had trouble in meeting, they get the benefit of the combined experience and observations of several other men who are dealing with the same kind of people every day.

These meetings last half an hour to a full hour each morning, but they are regarded as well worth the time taken out of the day's work. Each man goes out of the meeting full of enthusiasm and with new ideas that he is anxious to try out at once on the people he meets during the day.

Questions asked of the salesman who is telling of his experiences and the way he handled the situation are always pointed but good natured. There is a spirit of good fellowship in the meetings and a full understanding that the questions asked are for the good of all concerned and in no way intended to reflect on the methods of the man of whom they are asked. Friction rarely develops, as might be the case under other circumstances where it is necessary to ask many questions of a man who has failed to make a sale. Here it is understood that the man wants to know why he failed, and the others want to help him find the reason, as

well as to get information and ideas as to how they themselves might handle similar cases.

In naming his best three prospects to be seen during the day on starting out in the morning, it is assumed that the salesman will either sell them or find that he can't do it before he quits work. He also is expected to find during the course of the day's work three new prospects to take their places.

Each salesman is allowed fifty protected prospects, whose names are chalked on a blackboard along with data about when they were called on, what and when literature was sent them, and the like.

A salesman's protected list may include the names of anybody in his territory, with the single proviso that it is not already on the list of somebody else. With this one limitation, the salesman can add as many new names and as often as he wishes, always erasing one name for each new one he chalks up to keep the limit at fifty. He is free to find his own prospects whenever and wherever he wishes.

The daily discussion of each man's work has a strong tendency to curb a man's natural inclination to take things easy, for he knows that not only his boss but his fellow workers as well will know if he is not doing his work as he should. He knows that he is not working under rule-of-thumb and he likes to have it known that he can work and get results without having a boss tell him what to do and when to do it.

Another advantage lies in the fact that when a man puts a prospect's name on the board himself, it is more or less a declaration that he believes he can sell him. And having committed himself publicly, and with no excuse to fall back on if he fails, he will work a great deal harder to get the order than he would if somebody else told him to go out and try to sell a certain man a refrigerator.

KELVINATOR EXPANDS IN SEATTLE REGION

Seattle, Wash.—Extensive expansion of the Kelvinator sales in western Washington is announced with the naming of the Standard Furniture Company, with headquarters in both Seattle and Tacoma, as state distributors.

This appointment was made following the recent visit of J. F. Sayre, sales manager of Kelvinator Corp., accompanied by E. F. Seibert and M. E. Ewing.

Gordon J. Malone, northwest district manager for Kelvinator, has been working on this new sales plan for some months. W. C. Ruff, of the Seattle Kelvinator Company, will act as sales engineer. He will supervise sales in the wholesale division and will be in charge of the service department of the Standard Furniture Company. Upwards of 2,000 units of Kelvinator have been placed in Seattle and King counties.

Following their conferences in Seattle, Kelvinator officials made the trip to San Francisco by West Coast Air Transport Company, stopping en route to hold a similar conference with Portland distributors.

GRIGGS TO HANDLE ICE-O-MATIC LINE

Davenport, Ia.—Arthur P. Griggs has been appointed distributor in Scott County, Ia., and Rock Island County, Ill., for the Williams Ice-O-Matic refrigerator. Display rooms will be at 113 East Second Street.

Day by Day

More leading manufacturers

are choosing Dry-Zero!

Why?

Because the trend in electric refrigeration demands always more efficient and more permanent cabinets—

Because Dry-Zero insulated cabinets are the most efficient, and most permanent cabinets known!

ACTUAL VALUES

from tests by impartial authorities such as U. S. Bureau of Standards, Armour Institute, State Universities, etc.

MATERIAL	WT. CU. FT.	INSULATION VALUE	ABSORPTION*
DRY-ZERO.....	2 lbs.	4.15 to 4.3	14
Corkboard.....	9.5 to 13 lbs.	2.9 to 3.3	28
Wood fibre board.....	13 lbs.	2.9 to 3.2	115
Flax fibre board.....	13 lbs.	3 to 3.2	66
Cane fibre board.....	15 lbs.	2.7 to 2.9	78
Mineral wool slab.....	17 lbs.	2.6 to 2.8	

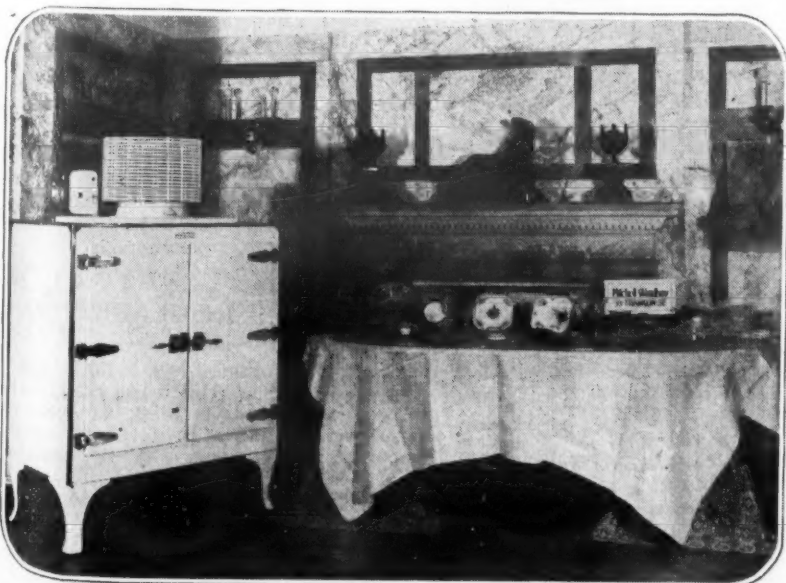
*Tests run at University of Minnesota

DRY-ZERO CORPORATION, 130 North Wells Street, Chicago, Illinois

DRY-ZERO

the most efficient commercial insulant known

Fine Glassware and Refrigerator Compete for Attention



IN one of the better apartments in Boston, a display of General Electric refrigerators was used in conjunction with a showing of glassware. A dietitian was present for two days and showed those interested how to use an electric refrigerator.

The owner of the apartment has

bought 125 General Electric refrigerators in 1929, and feels that the activity and display, with the demonstrations, improves his relations with his tenants.

These installations were completed by the Electric Refrigerator Company of New England, General Electric refrigerator distributors in Boston.

ELECTRIC REFRIGERATION NEWS

The Business Newspaper of the Refrigeration Industry

PUBLISHED EVERY TWO WEEKS BY

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February 26, 1930

The 1930 Lines

A PICTURE of an industry that is thoroughly alive to its problems is presented by this issue of THE NEWS. Designated as the annual "New Equipment" issue, it becomes an index of the industry's progress. An index often makes dull reading, but that is not true in this case. The long list of new models and new attachments shows that the men in charge of the destinies of electric refrigeration are very much on the job. They realize that they are working in a comparatively young industry; that they still have much to learn; and they are watching the public reactions to their products in a sincere effort to find out just what the public wants or needs.

Their interpretation of what the 1930 public wants will be found a few pages farther on. It is an impressive showing so far as mere numbers are concerned, but beyond that the very nature of the new products displays a new trend. There are few, if any, notable changes in the outward appearance of compressor or cabinet. They look and act much as they have in the past. They have proved their worth and have found general public acceptance.

This year's new equipment shows numerous improvements in details. With the big job out of the way, the manufacturers are finding time for working out refinements in their products, which although seemingly unimportant, actually add to the value of the machines.

Take the various means adopted to temper the dryness of the atmosphere within the food storage compartments. Several manufacturers have brought out solutions of that problem, and every manufacturer has that particular task very much in mind. The regulation of temperatures in different parts of the cabinet is another improvement that makes its appearance in several forms.

The freezing of desserts, the furnishing of cooled drinking water as part of the refrigerator's household service, the redesign of shelves to permit foods to be handled more easily, faster freezing of ice cubes, are all improvements that can be found in one or more of the new models. Then there are the new water coolers, the new display cabinets, the new room coolers and other modern uses of refrigeration.

The list of new improvements is a long one but it is by no means complete. Several manufacturers, for example, have new models actually under production but not quite ready for the market. In the next month or two several important new models will be announced by some of the most prominent manufacturers in the industry. Progress is so rapid these days, that it is no longer possible to do all one's improving at a given moment, and tell the whole year's story on New Year's Day. That's a sign of a healthy, progressive industry.

The electric refrigeration industry is looking forward, and going forward. That is the story this New Equipment issue tells.

Intelligent Advertising

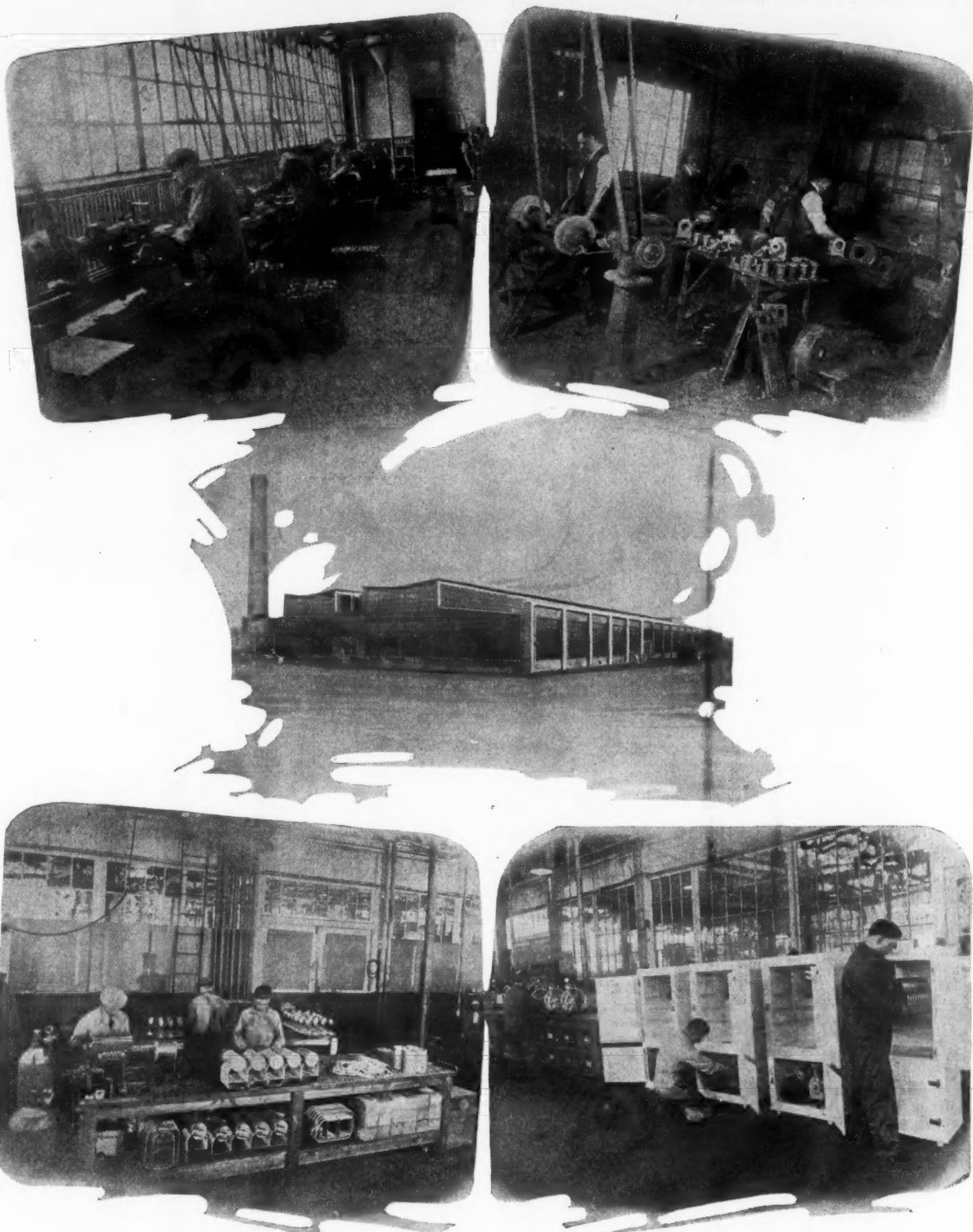
ON another page of this issue will be found a reproduction of an advertisement published by a distributor for one of the larger electric refrigerator manufacturers. Except in one particular, the advertisement is just like hundreds of other advertisements sent out by the manufacturer and used in hundreds of newspapers in all parts of the country. The difference comes in the picture, which is the main feature of the layout.

No one would have blamed the distributor if he had followed custom and used a picture of a refrigerator standing in lonely grandeur in some nameless person's kitchen, or even a refrigerator floating in mid-air without background or visible means of support.

But he had other ideas. The advertisement was to be used in special supplement covering the activities of the local chapter of the nationally famous Junior League. So the distributor obtained the services of a young lady of prominence, aged about three years, persuaded her to take an interest in his refrigerator, and then called in the photographer who enjoyed most of the Junior League business.

The result was an advertisement, not of a far away corporation, but of a local merchant; an advertisement that carried a real home town appeal that all the best minds in the manufacturer's advertising department could not have achieved.

Making Refrigerators in Canada



PRODUCTION of the new equipment offered by Frig-O-Matic, Ltd., is under way at Brantford, Ont., Canada, and new models are being shipped to dealers. The two top photographs in the group show the various operations in

machining the parts that go into the compressor.

In the center, the large Frig-O-Matic factory in Brantford can be seen. Construction of the evaporators is illustrated in the lower left-hand picture. Evap-

orators are assembled here and later placed in the cabinet. The lower right-hand picture shows workmen placing evaporators and compressors in the cabinets. The models are shipped to the dealer complete, ready for installation.

KELVINATOR ENTERS ITS SIXTEENTH YEAR

Detroit, Mich.—The Kelvinator Corporation having reached its sixteenth Milepost, the officials of the company are doing a little reminiscing on the changes which have come within less than two decades.

The March issue of "Cold Facts," publication of the Kelvinator Corporation, carries an illustrated center spread telling the romantic story of an humble beginning in a little plant in the down town district of Detroit, on March 11th, 1914, which for several years was little more than an experimental laboratory and a place to fabricate dreams of what the future might hold for manufacturers of electric refrigeration. A. H. Goss, first president of the company, and an engineer, comprised the original "organization." They were the pioneers of domestic electric refrigeration. The story is carried on through the struggles of the passing years to the present, when Kelvinator occupies one of Detroit's largest plants and owns the Leonard Refrigerator plant at Grand Rapids. Kelvinator window trims for March carry out the sixteenth anniversary idea.

QUICK FREEZING WILL EFFECT SAVINGS

THE rapid development of the quick-freezing process of preserving fresh-cut meats to be sold in packaged form is probably the most revolutionary development in food merchandising since the advent of canned goods. The new system calls for butchering the carcass promptly into individual cuts which are frozen solid in air-tight wrappers and chilled to a temperature of about 50 below zero. It is claimed that the quick-freezing process brings the meat from the manufacturer to the consumer with the weight of the cut unchanged and the flavor, texture, and appearance of the meat, when de-frosted, exactly as before the chilling operation.

The present cost of quick freezing meats is estimated at about 2.45 cents

per pound, which is expected to be reduced under large-scale production. Savings also will be realized in the elimination of waste resulting from preparing the carcass for individual cuts. Transportation savings are expected also, since the space taken up by packaged meats is considerably less.—Domestic Commerce.

A SUGGESTION

A. M. FENWICK
Refrigeration Sales and Service
Fostoria, Ohio.

Electric Refrigeration News,
Detroit, Mich.

Here is check to pay for renewal of my subscription for one year.

I have appreciated the several directories which you have printed, also the articles on various applications for commercial refrigeration.

I have this suggestion to make, and if followed out, I believe you will find it to be very valuable, both from a subscription building standpoint as well as a money-making venture.

In each issue print data, drawings, descriptive information, etc., of various commercial applications, making the articles up in such shape that they could be taken from the issue without damaging other news items or advertisements. The size to be 8 1/2 x 11, or other standard loose-leaf size, making it possible to carry conveniently.

Extra copies of the articles could be sold and the price for each article listed at the time of printing in the News.

These articles could be extended to include detailed description and technical information of various makes of refrigerating equipment devices, etc.

Also, a continued service course printed in a similar manner would be appreciated. A sales course would also be of great value.

Maybe this is expecting a great deal for \$2.00 per year, but it would be a great boost for your paper and a boon to its subscribers.

A. M. FENWICK.

SILICA GEL EXPANDS ACTIVITIES

New York, N. Y.—The Silica Gel corporation has formed a new company to be known as Silica Gel Dehydration and Refrigeration, Inc., which will install cooling and refrigeration plants in homes and buildings, it was learned on February 18. Application for a charter has been filed in Maryland.

Officers of the new company will be the same as those of the Silica Gel Corporation. In addition, the board of directors of the new concern will be almost identical to that of the parent corporation.

It is reported that the American Radiator & Standard Sanitary Corporation will acquire a substantial interest in it and be represented on the directorate.

E. Wilbur Miller, president of Davison Chemical Company and also of the Silica Gel Corporation, will probably head the new corporation.

Initial capitalization of the new company will consist of 50,000 shares of \$100 par value class "A" stock and 1,000 shares of no par common.

NEW PLANT FOR CORK INSULATION

Wilmington, Del.—Cork insulation, used extensively in the refrigeration industry and building trades, will be manufactured in larger volume at a huge new plant recently located here. Announcement of the \$2,500,000 factory to be built on a thirteen-acre site there by the Cork Insulation Company, Inc. of New York, was made by the Chamber of Commerce of the Delaware metropolis.

The company, which has large international holdings, will start production from the first unit of eleven large buildings early this spring. Raw materials will be brought from Spain and Portugal by the shipload up to the Delaware River into Wilmington's new Marine Terminal, which adjoins the new cork insulation plant.

TRAVELING TROUPES ARE CARRYING G. E. MESSAGE TO DEALERS IN THE FIELD

THREE traveling troupes from Cleveland are now busy carrying General Electric's "Sealed in Steel" slogan to every part of the country. In the short space of one month, fifty one-day conventions will be held. Duluth, Boston, New Orleans and San Francisco are the four points of the compass on the G. E. list of meetings, with the other forty-six sessions scattered through all the principal cities in between.

M. F. Mahony, assistant to the sales manager, will head the eastern troupe, which will begin its travels in Chicago on February 27. T. J. Donovan, manager of the apartment house division, will head the western expedition, which will hit the trail at Davenport, Iowa, on the same day. The southern group will take off from Pittsburgh the day before, and will be led by A. C. Mayer, manager of the merchandising service division.

These conventions will be conducted by the various distributors for the men in their territories. The Cleveland officials have set up a complete schedule for each convention and have provided the distributors with full instructions, including many of those details which are so often left to the imagination of those concerned, with uniformly unfortunate results. The prospectus provides for every contingency, and nothing has been left undone to make the conventions run with all the precision and smoothness of a G. E. refrigerator.

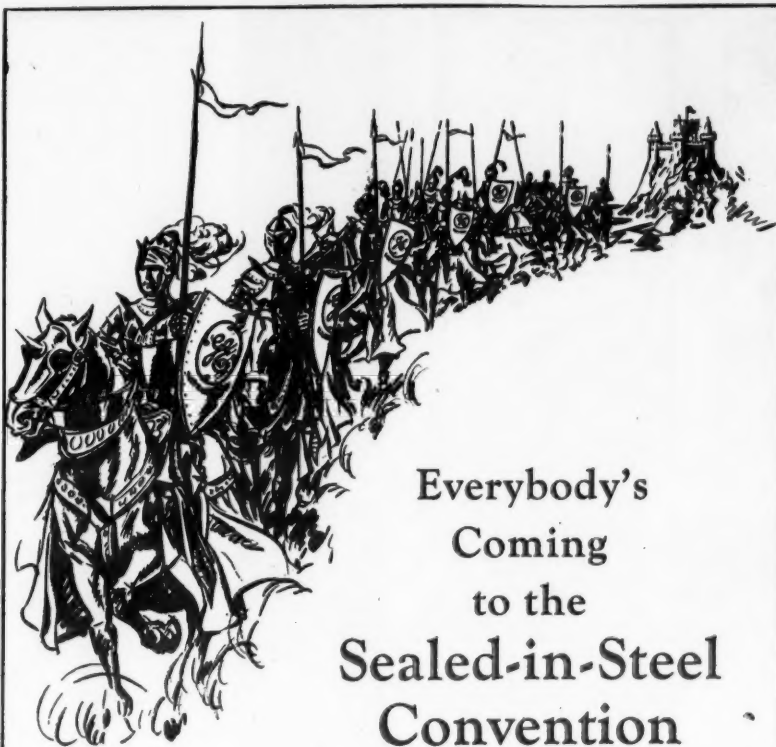
The photophone has been utilized to carry the "Sealed in Steel" message to the men in the field. A symbolical presentation of the subject, beginning in the days of chivalry, will be part of the program, and P. B. Zimmerman, sales manager, will address each convention from the screen. Day after day in the next couple of weeks, Mr. Zimmerman will address three G. E. conventions in three widely separated places at the same time, while the real Mr. Zimmerman will be hard at work in Cleveland.

The schedule of one-day conventions appears below. Every convention will begin at 1:15 P. M. and will consist of afternoon and evening sessions, with a banquet in between. In many cases a morning session, conducted by the distributor, to take up problems not emphasized in the afternoon, will be held. The schedule of conventions in its complete form is an interesting document, as

it shows not only when and where each convention will take place, but includes the train number and exact time of arrival of the traveling troupe. The convention schedule:

Feb. 26, Pittsburgh, Ochiltree Electric Co. and W. N. Hogan, Inc.
Feb. 27, Columbus, Brad-Barger Co. and F. P. Lutz.
Feb. 27, Chicago, R. Cooper, Jr., Inc.
Feb. 28, Springfield, Bulpitt Refrigeration Co.
Feb. 28, Louisville, Electric Refrigeration Co.
Mar. 3, Davenport, Breckenridge, Inc.
Mar. 3, Indianapolis, Hoosier Electric Refrigerator Co.
Mar. 3, Chattanooga, Tennessee Refrigeration Co.
Mar. 4, Des Moines, Ward B. Stringham Company.
Mar. 4, Memphis, Ray H. Boaz Co. and O'Bannon Bros.
Mar. 4, Cincinnati, Milnor Refrigeration Co. and Electric Home Appliance Co.
Mar. 5, Omaha, Storz Electric Refrigeration Co.
Mar. 5, St. Louis, James & Co., Inc.
Mar. 5, Detroit, Electric Utilities Co. and C. H. Stull Co.
Mar. 7, Denver, B. K. Sweeney Electrical Co.
Mar. 6, Kansas City, Glueck & Co.
Mar. 6, Fort Wayne, H. G. Bogart Co.
Mar. 7, Wichita, Johnson Bros. Co.
Mar. 7, Cleveland, Cushman Refrigeration Co. and The Willis Co.
Mar. 10, Salt Lake City, Frank Edwards Company.
Mar. 10, Oklahoma City, Ahrens Supply Company.
Mar. 10, Buffalo, Erco, Inc.
Mar. 11, Dallas, A. C. Rogers, Reid-Bishop, Inc., Findlater Refrigeration Company, E. O. Cone Co., Edmundson Refrigeration Corp., and Wright Bros.
Mar. 11, Rochester, Wheeler Refrigerator Corp.
Mar. 12, Los Angeles, Geo. Belsey Co. and Geo. T. Bauder.
Mar. 12, Boston, Electric Refrigeration Co. N. E., Eastern Service Refrigerator Co., Coghlin Electric Co. and Gould-Farmer Co.
Mar. 13, Hartford, Electric Device, Modern Home Utilities, Inc., and Newton-Parsons Co.
Mar. 13, New Orleans, Woodward, Wight Company.
Mar. 14, Fresno, Valley Electric Supply Company.
Mar. 14, Gulfport, A. G. Riddick, Inc.
Mar. 14, Albany, Page-Morris, Inc.
Mar. 17, San Francisco, L. H. Bennett.

A Cavalcade of Knights in Burnished Steel Armor Adorns the Prospectus of the G. E. Distributors' Conventions



Everybody's Coming to the Sealed-in-Steel Convention

Refrigeration Department
GENERAL ELECTRIC COMPANY

G. E. LEADERS ASSEMBLE FOR SALES CONVENTION

(Concluded from Page 8, Column 5)

to spend a little money," he said. "When one of the houses under my charge begins to slip, I hire a doorman, rig him up in a blue and gold uniform, and give the house all the airs of a prosperous concern. I see that it is brought up to date and is equipped with modern appliances such as electric refrigerators. When things are going all right, I sometimes let the doorman go, but the refrigerators stay." That doctrine pleased the G. E. men, especially the apartment house salesmen, who went home from the convention with an eye out for men of Mr. O'Neal's type in their own home towns.

Others who spoke on Thursday afternoon were Edwina Nolan, in charge of home service, and Mr. Mahony and T. O. Kennedy, of the Ohio Public Service Co. of Cleveland. Mr. Kennedy presented some facts and figures which showed how vitally interested the public service companies are in electric refrigeration.

Mr. Quinn made the closing speech of the convention, reviewing briefly the ground that had been covered and predicting that 1930 would be far ahead of 1929 in General Electric refrigerator sales.

SIGNS OF WELCOME

THE big electric sign, which blazed through the night over the canopy in front of the Hollenden, let all Cleveland know that the Electric Refrigeration Department of the General Electric Company was holding its annual convention. The distributors and Toppers did not have to wait until they came in sight of the Hollenden and the big sign to know that G. E. welcomed them. Six-foot posters in every railway station bore words of greeting from the home office to the visitors.

FROM MONTANA BY AIR

HENRY LORENTZ, of Great Falls, Montana, flew to Cleveland for the G. E. convention. Mr. Lorentz, who is a licensed pilot and owns his own plane, brought with him Ed. Smith, a fellow G. E. man, also of Great Falls. They made the trip in 19 hours' actual flying time, stopping en route at Aberdeen, South Dakota, Minneapolis and Fort Wayne. At various points along the route they encountered snow storms, but came through without trouble.



1930 Announcement

As forecast—during 1929 we doubled production of "M & E" Refrigeration and largely reduced service.

We now have in production our new light domestic 4/P/E model with over 8 sq. ft. of shelf area; and on the Freezer Shield our new safety Thermo and "De-frosting switch" together with "Visible Temperature Control" for graduating freezing speed.

This 4/P/E is very attractive in appearance and built to stand many years of continuous use at a minimum of up-keep and service charges.

Priced at \$200 f. o. b. factory (Lancaster, Pa.), it offers the best value ever achieved in the industry—in economy (both first cost and operation) and usefulness; and large numbers are already under contract for the current season.

Our complete range of Domestic units (with or without Boxes) provide an unexcelled line of quiet modern Refrigeration at the best current wholesale prices—which is now available to experienced and responsible Distributors (and "Box-Assemblers") in all unassigned areas in the United States, Canada and abroad.

We also have in production, and available to all our clients, a full line of commercial machines for all purposes (up to ½ Ton Ice Melting Capacity for Apartment house and general use)—including the lowest price first rate complete machine and box made in the country for the meat, dairy, grocery, flower trades, etc. (including Chain Store needs).

Our experience in "servicing" "M & E" machinery from the beginning in both our home office and factory areas (Metropolitan Philadelphia and Lancaster, Pa.) enables us to produce them with assurance to all buyers of fine performance "in the field."

The slight trouble and expense which now attends their operation demonstrates the total lack of need of the much vaunted "Hermetic Sealing" of some machines, which always require costly "Factory Repair" for every trifling

repair or derangement—and at heavy cost to the user after expiration of the "guaranteed free service" period.

Our machines are all of the standard and reliable reciprocating piston type and thoroughly proven in use.

During 1930 we will again double, probably treble, our production—but at prices below proper value because of continued and increased country-wide Public Utility "below-cost" competition.

We declined to join the Refrigeration Division of the National Electric Manufacturers' Ass'n because of the domination of its policy and actions by the N. E. L. A. (National Electric Light Ass'n) which combines the "P. U. M." (Public Utility Monopoly) Electric and Gas interests—now and in the past unfairly and unjustly oppressing the Electric and Gas Appliance and contracting trades.

We have continued our Complaint to the Federal Trade Commission (Washington) vs "P. U. M." Appliance, Merchandise and Contracting activities (with much new data added), and will send printed copies in due course to all serious applicants therefor.

We offer our information and co-operation to all disposed to concert seriously with us in organized opposition to all these current "P. U. M." unnecessary and improper business activities; and now suggest immediate organization of all Independent Appliance (Electric and Gas) Manufacturers, Distributors, Dealers and Contractors into an "Association vs 'P. U. M.' Alien and Unregulated Business Activities and Operations" to effect promptly mutual, just and necessary protection.

All persons and concerns sharing in our experience, views and purposes are requested to communicate with us fully at once on this subject.

Very truly yours,

POWELL EVANS
President

Merchant & Evans Co.
2035 Washington Ave.
Philadelphia, Pa., U. S. A.



P6



P8

CABINETS
BY

Seeger

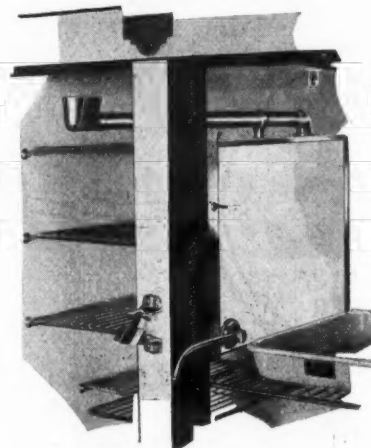
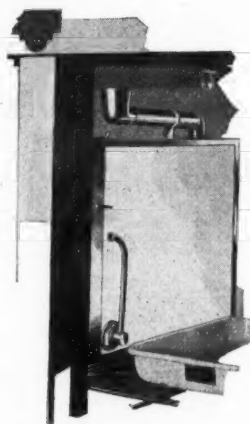
SAINT. PAUL

DE LUXE REFRIGERATOR

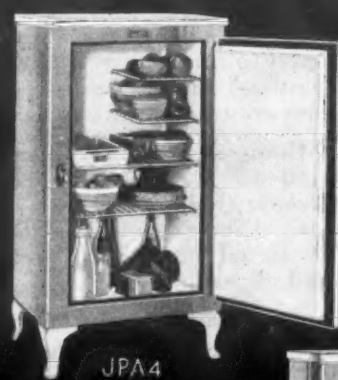
A presentation of Cabinets by Seeger, for electrical or mechanical refrigeration, typical of traditional Seeger quality, and representative of the present day requirements of refrigeration Cabinets, combining advanced utility and practical beauty.

Features indicating superiority of De Luxe Cabinets by Seeger...Water Tank; Electric Light; Chiltray; Vegetable Bin.

SEEGER REFRIGERATOR COMPANY
SAINT PAUL, MINNESOTA



CLOSEUP ILLUSTRATIONS



JPA4



JPS-2



JP4



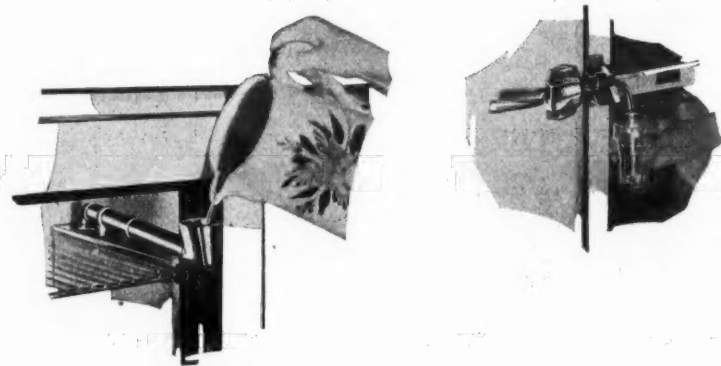
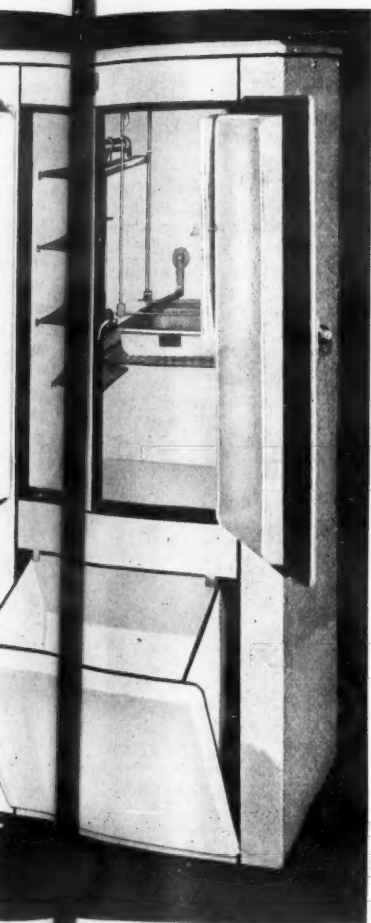
LUXE REFRIGERATION

WATER TANK—Created, designed and executed by Seeger engineers after months of painstaking effort, and successfully passing exacting tests under trying and severe conditions, for the purpose of healthfully cooling water, simply and satisfactorily.

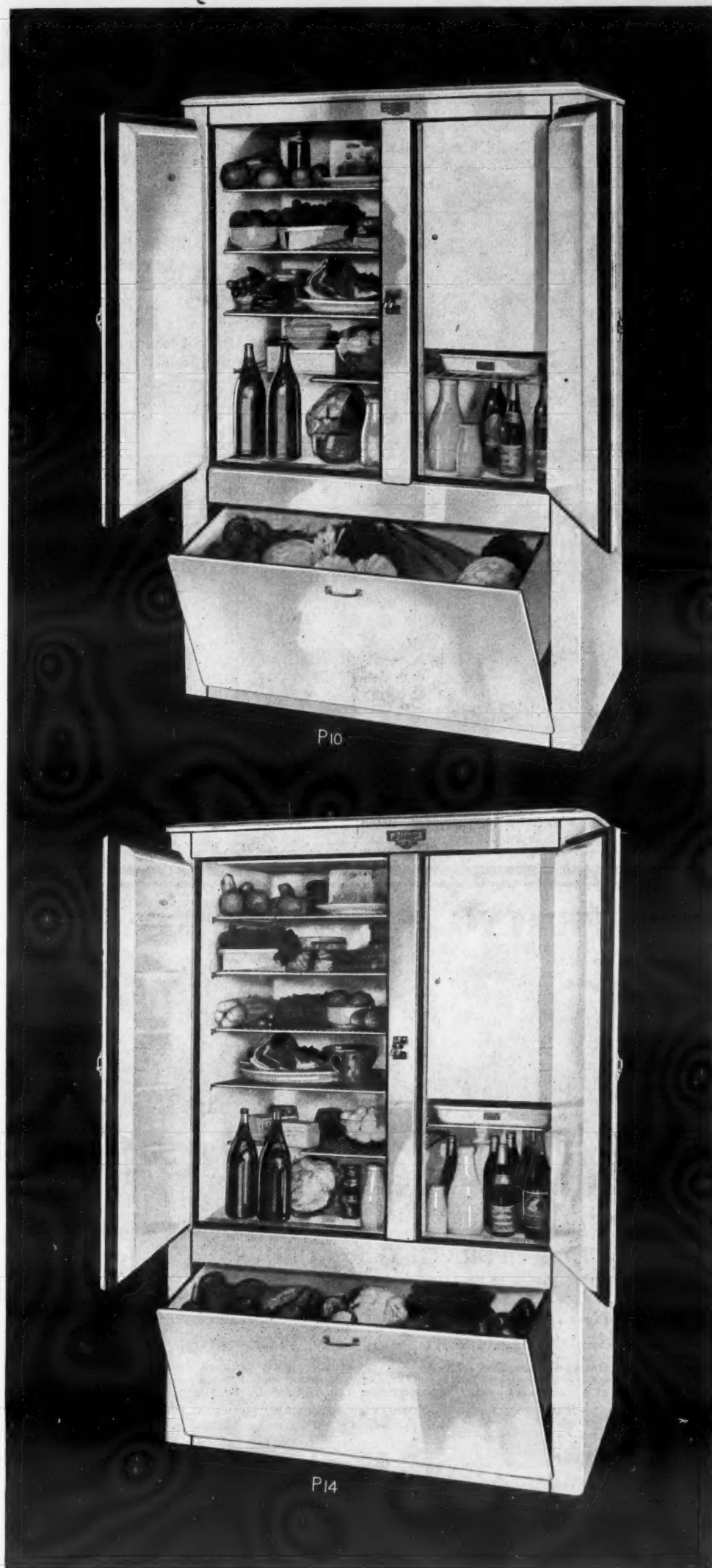
ELECTRIC LIGHT—A revelation in convenience, clearly and quickly illuminating entire Cabinet interior.

CHILTRAY—For chilling certain foods—receptacle for additional ice cubes, and also for use while defrosting.

VEGETABLE BIN—For immediate, convenient and healthful storage of fruits and vegetables.



THE NEW SEEGER WATER TANK



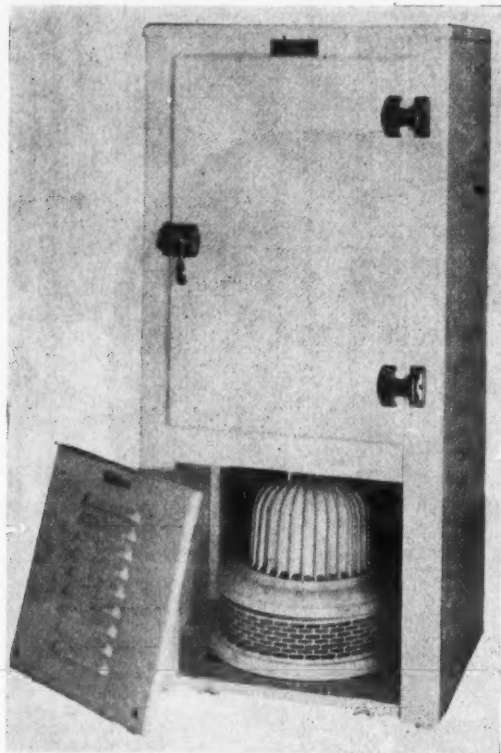
CABINETS
BY

Seeger

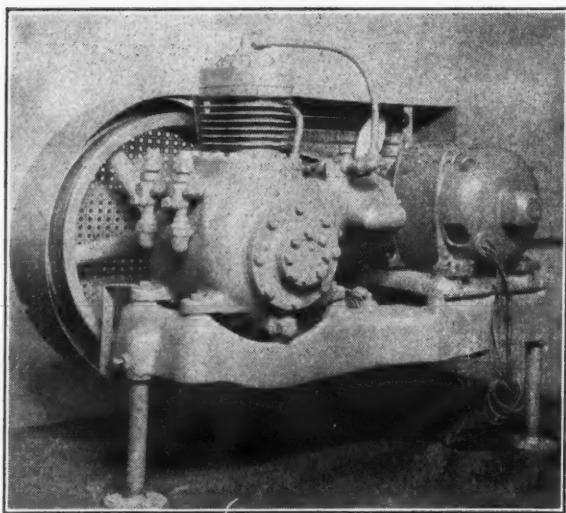
SAINT. PAUL

Progress of Electric Refrigeration Industry

Ice-O-Matic



Ice-O-Matic Junior model with condensing unit mounted in the base. (Below) One of the new commercial compressors.



THE Williams Ice-O-Matic line, manufactured by the Williams Oil-O-Matic Heating Corporation at Bloomington, Illinois, has been made complete by the addition of two new sizes of commercial

compressors and the Ice-O-Matic Capitol series of household refrigeration models. These new additions make the line complete in the domestic field from a 4.7 cubic foot job and up. The price range is \$175.00 and upwards, f. o. b. factory. The commercial line is complete, having a full range of sizes from 1/4 H. P. to 1 1/2 H. P. compressor.

The Ice-O-Matic Capitol series is following the trend of designs for smaller sizes. The design of this model is unique and the reason for its name is obvious. The Capitol series includes four models, ranging from 4.7 cubic feet to 6 cubic feet net food storage capacity. The cabinets are of special design, having extra thick walls and massive appearance.

The Ice-O-Matic Capitol compressor is a self-contained sealed unit. The unit may be located on top of the cabinet or in a compartment in the base of cabinet. In fact, a remote installation may be made if desired. There are two principal assemblies in this unit. One assembly includes the base, condenser, liquid receiver, and the individual motor-driven condenser cooling fan. The other unit includes the crankcase and dome casting which form the sealed housing for the motor and direct driven compressor mechanism. These two main assemblies are readily accessible and can be disassembled for repair or replacement.

The condensing coil is cooled by forced air circulation. The air is directed by means of a baffle which passes it over the liquid receiver and condenser tubes. The circulating fan is direct driven by a motor having only one moving part. It operates at 800 R. p. m.

The compressor is a reciprocal type direct driven by an eccentric shaft operating at motor speed. Only one valve is used. It is of the flapper type. All compressor moving parts are alloy steel, hardened and ground. The compressor is lubricated by splash method, all parts running in a bath of oil.

The starting mechanism for the split phase motor is controlled by a centrifugal governor, which provides ample starting torque for the compressor and automatically switches the circuit to the running windings as soon as the motor has picked up its load. A thermal cut-out switch is provided for motor protection.

Ice-O-Matic Capitol models are shipped

completely charged and ready for installation. The wiring is all complete and ready for operation by merely inserting the conventional type of wall-socket plug.

The temperature control incorporates a quick freezing attachment as standard on all models. It is located alongside of the cooling unit and is instantly accessible.

The new additions to the Ice-O-Matic commercial line of compressors are known as C and D. They are heavy duty, high efficiency jobs, designed for the most exacting requirements. A feature in the models C and D, as well as other models of Ice-O-Matic compressors, is the oil return device, which separates the oil from the compressed vapors and automatically returns it to the compressor crankcase.

Protectostat

TWO models of Protectostats are offered by the Safety Regulator Company of Los Angeles, Calif., for the control of pressures in sulphur dioxide and ammonia refrigerating machines. Model No. 12 is for SO₂ units equipped with motors of 1 1/2 horsepower. No. 52 is for ammonia machines having motors with a rating of 1 1/2 horsepower.

Pressure cutout switch can be adjusted to open the circuit at any temperature. These instruments have aluminum housings and weigh about five pounds complete.

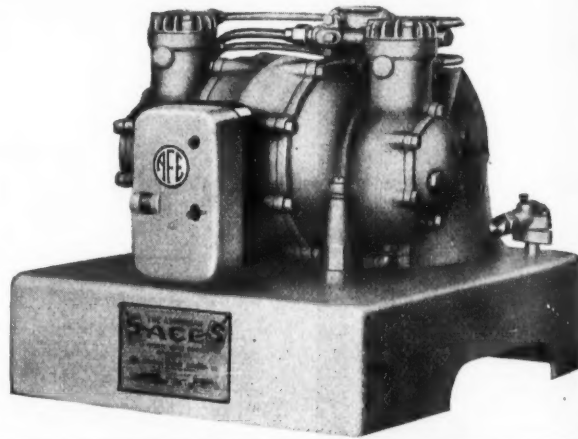
American Ace

(Concluded from Page 1, Column 1)

condenser operates cuts down the running time of the machine considerably. All parts of the compressor are constantly bathed in oil by positive splash lubrication. Motor capacitor is also located in the machine base.

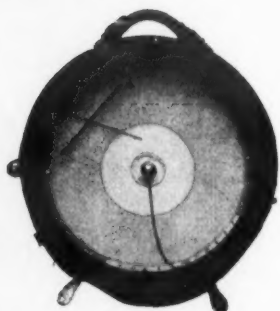
The new machine is small; the 500-pound unit requires 18 1/2 inches by 19 inches floor space, and is 21 inches high, compact, fully automatic.

The American Foundry Equipment Company is a manufacturing organization founded 20 years ago. Verne E. Minick is the president of the company, John S. Sammons is vice-president and general manager, Otto A. Pfaff, treasurer; Thomas J. Fowler, chief engineer and manager of its refrigerating equipment division, and J. B. Lawrence is director of sales of refrigerating equipment.

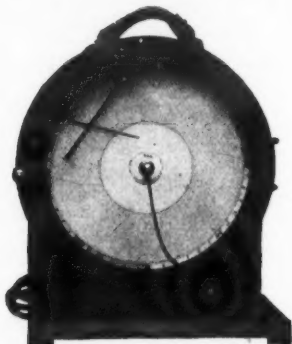


The compactness of the American Ace compressor can be seen in the photograph at the right.

OFFERING SUBJECT TO PRIOR SALE



NEW



USED

TAG-TIME OPERATING RECORDERS

106 New, 110 Slightly Used

Price—New

\$20.00 each

Price—Slightly Used

15.00 each

Tag Electrically Operated Time Operation Recorders; 10" size; black japanned iron moisture proof case with nickel-plated rings and fittings; complete with 100 48-hour charts and bottle of ink and accessories. Pens operate on 110 A. C. or D. C.

Manufactured by: C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.



60—6" Diameter of Case with 4" Chart

Small Sized Handy

RECORDING THERMOMETER

This model No. 144 Recording Thermometer is particularly suitable for securing an efficient check of atmospheric temperature conditions in such places as Cold Storage Rooms, Electrical Refrigerating Units, Dairies, Greenhouses, etc.

RECORDING SYSTEM—A special frictionless form of inverted penarm with fountain pen is part of the standard equipment furnished with Model No. 144 Recording Thermometer. This insures a sufficient supply of ink and uniform record line for the complete 72 hour revolution of chart.

Price \$10.00 each

50 New 3"—100 lb. ASHCROFT PRESSURE GAUGE

PRICE \$1.50 EACH

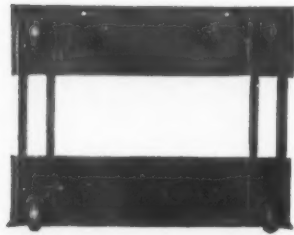
3 New 6" CROSBY TEST GAUGES

100 lb. Pressure, Bronze Encased
PRICE \$8.00 EACH

12 Slightly Used BRISTOL'S RECORDING THERMOMETERS

Model No. 146

Price \$15.00 each



750 STEEL DOLLIES

with 4" dia. cast iron swivel wheels, base 40"x31"x6" height. Welded Sheet Steel 10 gauge—weight 60 lbs.

Price \$4.00 each

These Dollies were used for Refrigerator Carriages.



100 BRISTOL'S ELECTRICAL OPERATION RECORDERS

Model No. 916

Price \$18.00 each

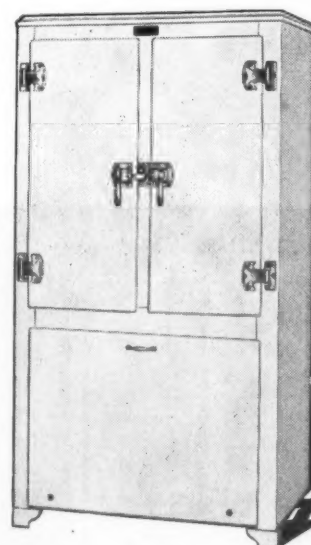
Illustration shows view with door open and closed. Volume of space occupied is 15 1/2" high overall including handle and feet, 9 1/4" wide and 6 1/4" deep at greatest depth.

These recorders have been especially designed to be used for checking operating time of motors, for electrical refrigerators. It is compact, furnished in portable wood case, uses a 6 inch chart and 3 day (72 hour) clock and can be used on 220-110 volts. Resistance is mounted self-contained inside of case. The wood case is an effective insulator against grounds that may exist in damp places.

All of the above has been purchased by us from the Holmes Products, Inc., who have discontinued manufacturing Electric Refrigerators.

THE STANDARD STEEL CO.

15-17 Kimberly Ave. WEST HAVEN, CONN.



ITS PROFITS
\$ \$ PROFITS \$ PR
PROFITS \$ PROFITS
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PROFITS \$ PROFITS
ITS \$ PROFITS \$ PR
PROFITS \$ PR
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PROF

How Much Of Your PROFITS STAYS IN THE BANK?

That's an important question for every Electric Refrigerator Dealer and Distributor to consider. No matter how big your volume may be—unless a good portion of your profits—remains NET profits—you are not making the money you are entitled to.

If your NET profits are constantly being reduced by servicing charges, it will pay you to investigate WAYNE ELECTRIC REFRIGERATORS.

For here is a unit built to reduce servicing costs to a minimum.

Write us today. Let us tell you of this new improved WAYNE with its Auto-

matic Cold Control. Let us tell you of the new merchandising plans, that are certain to increase your sales.

Let us tell you of our finance plan. Study the obvious advantages of each of these features—at your leisure. You'll find it mighty profitable reading, we're sure.

WAYNE HOME EQUIPMENT COMPANY, FORT WAYNE, INDIANA

WAYNE

ELECTRIC REFRIGERATOR

Reflected by New Equipment for 1930 Buyers

Kelvinator

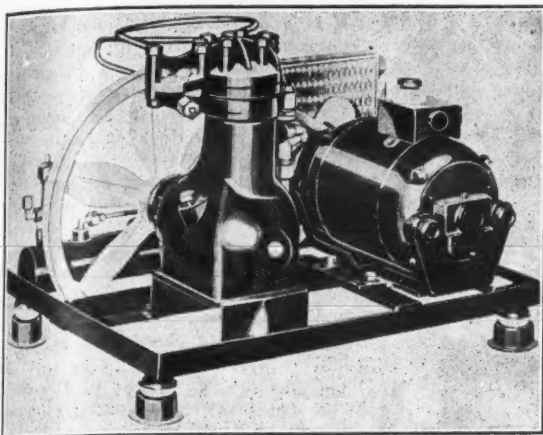
THE Kelvinator line of domestic cabinets is entirely new, having been introduced late in November last year. There are five De Luxe, four Standard and three Utility models. A feature of all the models is the automatic Iso-Thermic tube for faster freezing.

The Ice-O-Thermic tubes automatically concentrate the entire refrigerating force of the unit in the coils, which completely surround the bottom ice tray. The tubes function for quick freezing of ice cubes and desserts without affecting temperatures in the other compartments of the cabinet. They automatically change the temperature as the freezing load is increased or decreased, and the compressor automatically ceases

The Kelvinator commercial line has been augmented by a number of new units. The complete line is designed to meet all requirements of the commercial field. Four new cross fin cooling units are also being offered by Kelvinator, model X5-140, a giant unit, is capable of handling the average market cooler. It has an ice-making capacity equivalent to 105 tons of ice per year.

The addition of the new 2-, 3- and 4-hole portable ice cream cabinets, to solve the "small stop" problem, augmented the Kelvinator ice cream cabinet line.

New water coolers are added to the Kelvinator line which, with the new domestic cabinets, rounded out commercial and ice cream cabinet lines. A description of a two-hole portable ice cream cabinet can be found on page 31. Condensing unit and new type of control are also shown on that page.

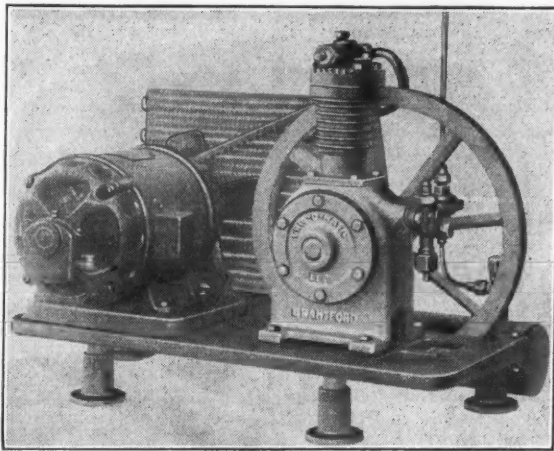


One of the condensing units in the new Kelvinator line.

Frig-O-Matic

NEW models for the 1930 market have just been completed by the Frig-O-Matic, Ltd., Brantford, Ont., Canada, manufacturers of electric refrigeration systems. The line is now comprised of four compressor models, "A" with 160 lbs. ice melting effect, "B" 190 lbs., "C" 230 lbs., and "D" with 430 lbs.

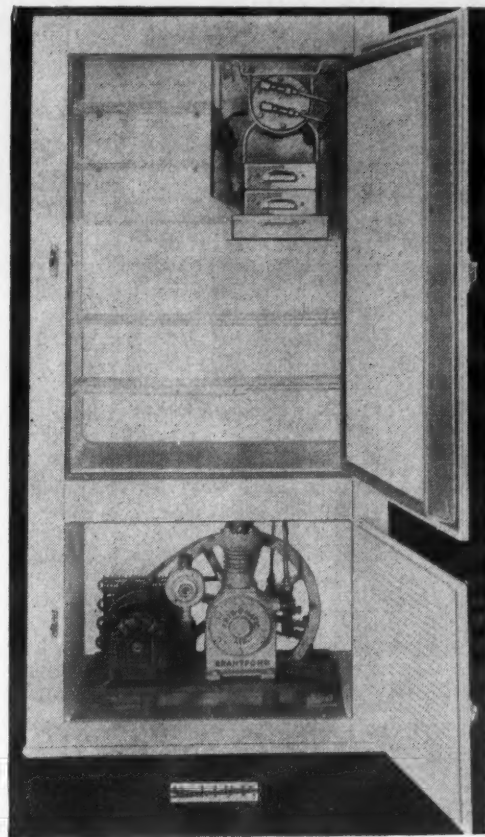
Previously the "A," "B," and "C," condensing units were assembled inside a rectangular coil of copper tubing, 85 feet long, but with the adoption of the finned tube condenser, a number of changes have been made in compressor equipment. The new machines have lower bases and crankcases and Model "D" has been added to give the line a larger range of capacity.



Compressor in the line developed by Frig-O-Matic, Ltd.

During the month of January Frig-O-Matic introduced three self-contained refrigerators. There are three standard models, a 6.5 cu. ft. box with white enamel inside and outside; a 6.5 cu. ft. cabinet with porcelain interior, and a 9 cu. ft. model with porcelain interior. These models are shipped from the factory completely assembled so that it is only necessary for the dealer to open the valves to start the machine.

A. E. Spowage, general manager of Frig-O-Matic, Ltd., reports that his company recently equipped the Renfrew Apartments and the Cavendish Court Apartments in Toronto. The former building has 32 suites in operation.



Frig-O-Matic self-contained model which is shipped to the dealer ready for installation. Three standard refrigerators are available.

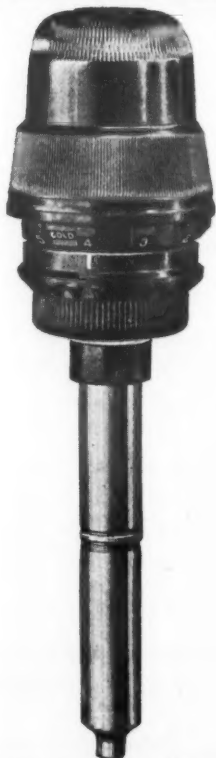
to work when the freezing is completed.

The larger or De Luxe models give four distinct temperatures without affecting the normal below fifty degrees temperature of the food compartment. There is the automatic fast freezing compartment for producing ice cubes, ices and frozen desserts in half the usual time; the normal freezing chamber, operating automatically, for making ice cubes, frozen desserts, etc., in the usual time; a 40 to 50 degree food compartment, also operating automatically, which always maintains the correct temperature for the proper preservation of foods; and there is a special cold storage compartment, below freezing, for keeping frozen fruits, meats and game over any desired period of time.

These cabinet models are of new design, massive in appearance and constructed with heavy doors. Hardware is worked out in a tasteful, modernistic style. The cabinets are well-proportioned, having a convenient height that makes for accessibility. All porcelain panels are separated by rubber trim strips, which blend harmoniously with the design and at the same time protect the porcelain. Latches are trigger type and provision is made for locking. Rubber ice trays, which proved popular with the old models, will again be a part of new line equipment.

NEW ADJUSTABLE RANCO CONTROL

Provides an Ideal Temperature Range on Household Refrigerator



The Ranco Control for 1930 has many refinements and basic improvements which make it more than ever the ideal control for the modern household refrigerator.

Write for Information

The Automatic Reclosing Circuit Breaker Co.

COLUMBUS, OHIO U. S. A.

To Retail Salesmen:

Capitalize the nation-wide enthusiasm for Celotex Insulation

WHEN you talk Celotex Refrigerator Insulation to your customers, you have the weight of enthusiastic public acceptance behind your statements.

No technical data ... no long drawn discussion is needed to sell people on its value. The very name Celotex stands for effective insulation in the minds of the men and women from whom your sales must come.

Millions of dollars worth of national advertising has taught home owners how Celotex Insulating Cane Board resists the passage of heat.

Celotex Refrigerator Insulation is a special kind of Celotex ... fabricated by processes which increase its insulating efficiency to the highest possible degree.

Use the strong and ever increasing preference for Celotex insulation in every sales talk. Make this powerful selling point help you sell more refrigerators.

1. *Can't settle or sag* ... Celotex Refrigerator Insulation covers each insulated area with a single board of exactly the right thickness. This insulation can never settle or sag. There are no seams or joints where heat leakage would occur.

2. *Strong, substantial cabinets* ... The great structural strength of Celotex reinforces the framework and walls of wood or steel cabinets ... gives them a solidity that adds to the life of the refrigerator. Yet the boards are so light in weight that mobility is not sacrificed.

3. *Clean, odorless, sanitary* ... Celotex Refrigerator Insulation is made of the long, tough fibres of cane, carefully cleaned and sterilized. These fibres are entirely odorless. No insulation is more sanitary than Celotex.

THE CELOTEX COMPANY

919 North Michigan Avenue
CHICAGO, ILLINOIS

Mills: New Orleans, Louisiana

Branch sales offices in many principal cities

(See telephone books for addresses)

Sales distributors throughout the world

In Canada: Alexander Murray & Co., Ltd., Montreal

Your customers are always interested in the insulation of your cabinets. You'll find that their enthusiasm for Celotex Refrigerator Insulation leads into a successful closing.

CELOTEX

BRAND

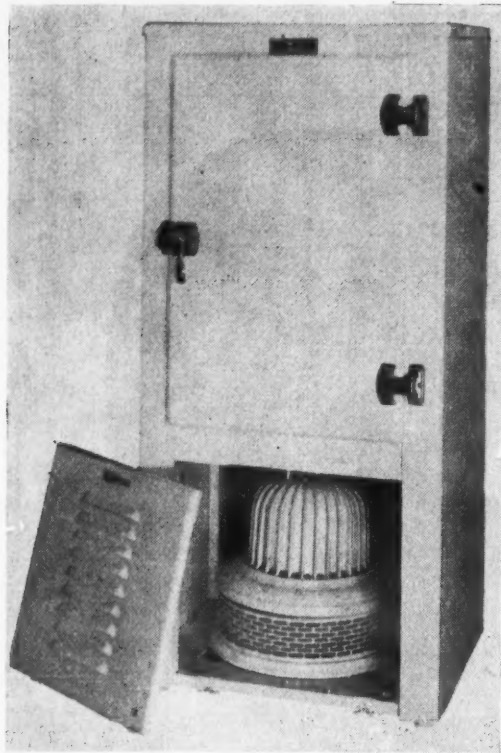
INSULATING CANE BOARD

REFRIGERATOR INSULATION

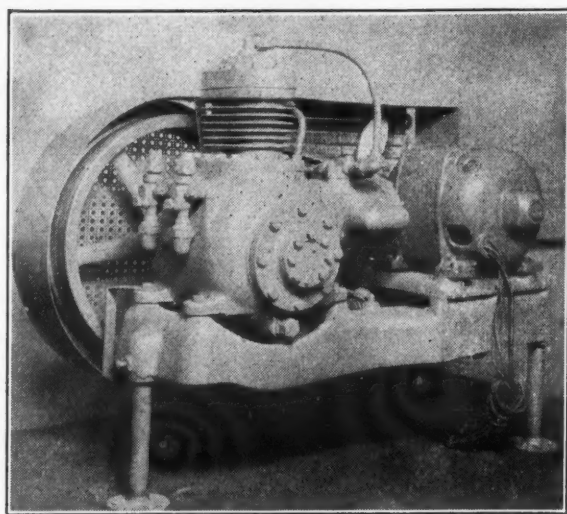
The word
CELOTEX
(Reg. U. S. Pat. Off.)
the trademark of and indicates
manufacture by
The Celotex Company
Chicago, Ill.

Progress of Electric Refrigeration Industry

Ice-O-Matic



Ice-O-Matic Junior model with condensing unit mounted in the base. (Below) One of the new commercial compressors.



THE Williams Ice-O-Matic line, manufactured by the Williams Oil-O-Matic Heating Corporation at Bloomington, Illinois, has been made complete by the addition of two new sizes of commercial

compressors and the Ice-O-Matic Capitol series of household refrigeration models. These new additions make the line complete in the domestic field from a 4.7 cubic foot job and up. The price range is \$175.00 and upwards, f. o. b. factory. The commercial line is complete, having a full range of sizes from 1/4 H. P. to 1 1/2 H. P. compressor.

The Ice-O-Matic Capitol series is following the trend of designs for smaller sizes. The design of this model is unique and the reason for its name is obvious. The Capitol series includes four models, ranging from 4.7 cubic feet to 6 cubic feet net food storage capacity. The cabinets are of special design, having extra thick walls and massive appearance.

The Ice-O-Matic Capitol compressor is a self-contained sealed unit. The unit may be located on top of the cabinet or in a compartment in the base of cabinet. In fact, a remote installation may be made if desired. There are two principal assemblies in this unit. One assembly includes the base, condenser, liquid receiver, and the individual motor-driven condenser cooling fan. The other unit includes the crankcase and dome casting which form the sealed housing for the motor and direct driven compressor mechanism. These two main assemblies are readily accessible and can be disassembled for repair or replacement.

The condensing coil is cooled by forced air circulation. The air is directed by means of a baffle which passes it over the liquid receiver and condenser tubes. The circulating fan is direct driven by a motor having only one moving part. It operates at 800 R. p. m.

The compressor is a reciprocal type direct driven by an eccentric shaft operating at motor speed. Only one valve is used. It is of the flapper type. All compressor moving parts are alloy steel, hardened and ground. The compressor is lubricated by splash method, all parts running in a bath of oil.

The starting mechanism for the split phase motor is controlled by a centrifugal governor, which provides ample starting torque for the compressor and automatically switches the circuit to the running windings as soon as the motor has picked up its load. A thermal cut-out switch is provided for motor protection.

Ice-O-Matic Capitol models are shipped

completely charged and ready for installation. The wiring is all complete and ready for operation by merely inserting the conventional type of wall socket plug.

The temperature control incorporates a quick freezing attachment as standard on all models. It is located alongside of the cooling unit and is instantly accessible.

The new additions to the Ice-O-Matic commercial line of compressors are known as C and D. They are heavy duty, high efficiency jobs, designed for the most exacting requirements. A feature in the models C and D, as well as other models of Ice-O-Matic compressors, is the oil return device, which separates the oil from the compressed vapors and automatically returns it to the compressor crankcase.

Protectostat

TWO models of Protectostats are offered by the Safety Regulator Company of Los Angeles, Calif., for the control of pressures in sulphur dioxide and ammonia refrigerating machines. Model No. 12 is for SO₂ units equipped with motors of 1 1/2 horsepower. No. 52 is for ammonia machines having motors with a rating of 1 1/2 horsepower.

Pressure cutout switch can be adjusted to open the circuit at any temperature. These instruments have aluminum housings and weigh about five pounds complete.

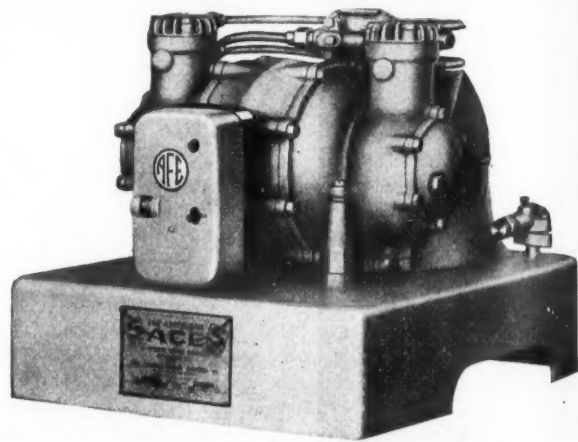
American Ace

(Concluded from Page 1, Column 1)

condenser operates cuts down the running time of the machine considerably. All parts of the compressor are constantly bathed in oil by positive splash lubrication. Motor capacitor is also located in the machine base.

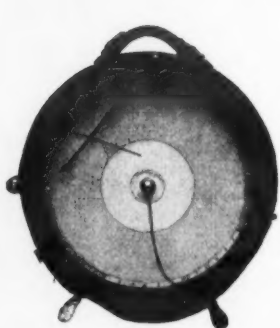
The new machine is small; the 500-pound unit requires 18 1/2 inches by 19 inches floor space, and is 21 inches high, compact, fully automatic.

The American Foundry Equipment Company is a manufacturing organization founded 20 years ago. Verne E. Minick is the president of the company, John S. Sammons is vice-president and general manager, Otto A. Pfaff, treasurer; Thomas J. Fowler, chief engineer and manager of its refrigerating equipment division, and J. B. Lawrence is director of sales of refrigerating equipment.

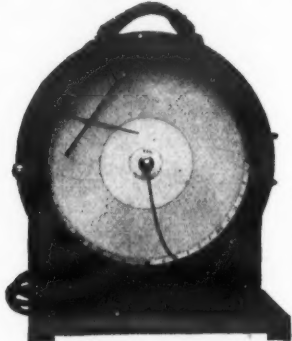


The compactness of the American Ace compressor can be seen in the photograph at the right.

OFFERING SUBJECT TO PRIOR SALE



NEW



USED

TAG-TIME OPERATING RECORDERS

106 New, 110 Slightly Used

Price—New

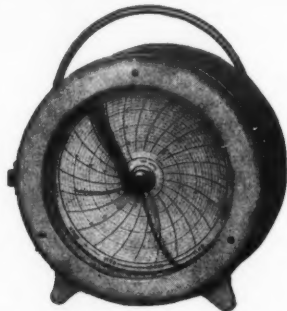
\$20.00 each

Price—Slightly Used

15.00 each

Tag Electrically Operated Time Operation Recorders; 10" size; black japanned iron moisture proof case with nickel-plated rings and fittings; complete with 100 48-hour charts and bottle of ink and accessories. Pens operate on 110 A. C. or D. C.

Manufactured by: C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.



60—6" Diameter of Case with 4" Chart

Small Sized Handy

RECORDING THERMOMETER

This model No. 144 Recording Thermometer is particularly suitable for securing an efficient check of atmospheric temperature conditions in such places as Cold Storage Rooms, Electrical Refrigerating Units, Dairies, Greenhouses, etc.

RECORDING SYSTEM—A special frictionless form of inverted penarm with fountain pen is part of the standard equipment furnished with Model No. 144 Recording Thermometer. This insures a sufficient supply of ink and uniform record line for the complete 72 hour revolution of chart.

Price \$10.00 each

50 New 3"—100 lb.
ASHCROFT PRESSURE
GAUGE

PRICE \$1.50 EACH

3 New 6"
CROSBY TEST GAUGES

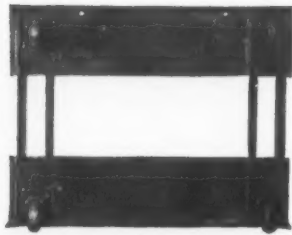
100 lb. Pressure, Bronze Encased

PRICE \$8.00 EACH

12 Slightly Used
BRISTOL'S RECORDING
THERMOMETERS

Model No. 146

Price \$15.00 each



750 STEEL DOLLIES

with 4" dia. cast iron swivel wheels, base 40"x31"x6" height. Welded Sheet Steel 10 gauge—weight 60 lbs.

Price \$4.00 each

These Dollies were used for Refrigerator Carriages.



100 BRISTOL'S ELECTRICAL OPERATION RECORDERS

Model No. 916

Price \$18.00 each

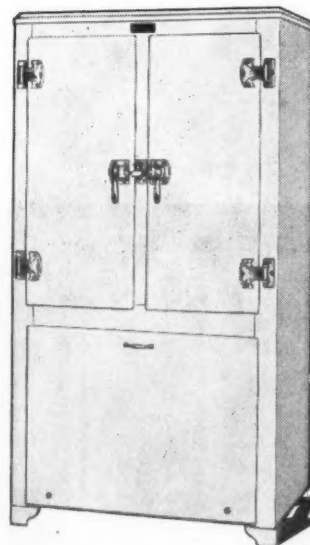
Illustration shows view with door open and closed. Volume of space occupied is 15 1/2" high overall including handle and feet, 9 1/2" wide and 6 1/2" deep at greatest depth.

These recorders have been especially designed to be used for checking operating time of motors, for electrical refrigerators. It is compact, furnished in portable wood case, uses a 6 inch chart and 3 day (72 hour) clock and can be used on 220-110 volts. Resistance is mounted self-contained inside of case. The wood case is an effective insulator against grounds that may exist in damp places.

All of the above has been purchased by us from the Holmes Products, Inc., who have discontinued manufacturing Electric Refrigerators.

THE STANDARD STEEL CO.

15-17 Kimberly Ave. WEST HAVEN, CONN.



IT'S \$ PROFITS
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PROF

How Much Of Your PROFITS STAYS IN THE BANK?

That's an important question for every Electric Refrigerator Dealer and Distributor to consider. No matter how big your volume may be—unless a good portion of your profits—remains NET profits—you are not making the money you are entitled to.

If your NET profits are constantly being reduced by servicing charges, it will pay you to investigate WAYNE ELECTRIC REFRIGERATORS.

For here is a unit built to reduce servicing costs to a minimum.

Write us today. Let us tell you of this new improved WAYNE with its Auto-

matic Cold Control. Let us tell you of the new merchandising plans, that are certain to increase your sales.

Let us tell you of our finance plan. Study the obvious advantages of each of these features—at your leisure. You'll find it mighty profitable reading, we're sure.

WAYNE HOME EQUIPMENT COMPANY, FORT WAYNE, INDIANA

WAYNE

ELECTRIC REFRIGERATOR

Reflected by New Equipment for 1930 Buyers

Kelvinator

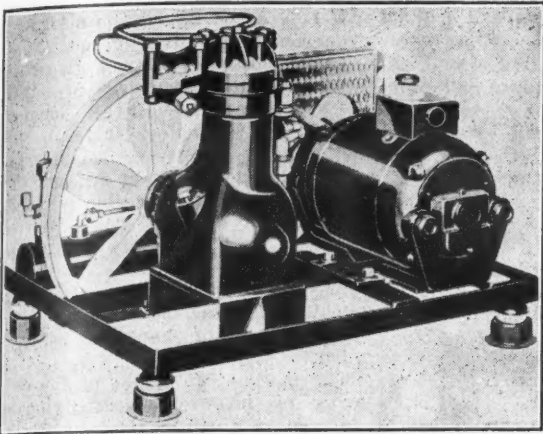
THE Kelvinator line of domestic cabinet refrigerators is entirely new, having been introduced late in November last year. There are five De Luxe, four Standard and three Utility models. A feature of all the models is the automatic Iso-Thermic tube for faster freezing.

The Iso-Thermic tubes automatically concentrate the entire refrigerating force of the unit in the coils, which completely surround the bottom ice tray. The tubes function for quick freezing of ice cubes and desserts without affecting temperatures in the other compartments of the cabinet. They automatically change the temperature as the freezing load is increased or decreased, and the compressor automatically ceases

The Kelvinator commercial line has been augmented by a number of new units. The complete line is designed to meet all requirements of the commercial field. Four new cross fin cooling units are also being offered by Kelvinator, model X5-140, a giant unit, is capable of handling the average market cooler. It has an ice-making capacity equivalent to 105 tons of ice per year.

The addition of the new 2-, 3- and 4-hole portable ice cream cabinets, to solve the "small stop" problem, augmented the Kelvinator ice cream cabinet line.

New water coolers are added to the Kelvinator line which, with the new domestic cabinets, rounded out commercial and ice cream cabinet lines. A description of a two-hole portable ice cream cabinet can be found on page 31. Condensing unit and new type of control are also shown on that page.

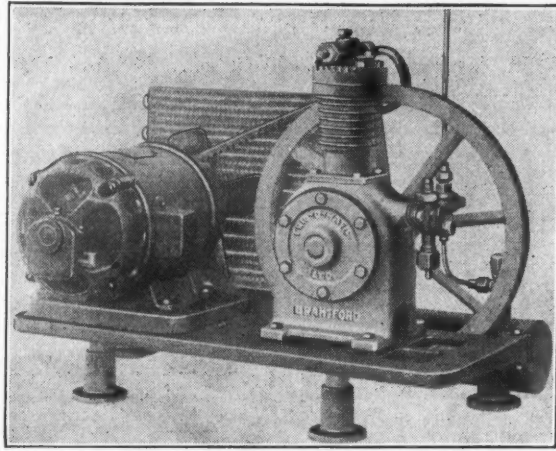


One of the condensing units in the new Kelvinator line.

Frig-O-Matic

NEW models for the 1930 market have just been completed by the Frig-O-Matic, Ltd., Brantford, Ont., Canada, manufacturers of electric refrigeration systems. The line is now comprised of four compressor models, "A" with 160 lbs. ice melting effect, "B" 190 lbs., "C" 230 lbs., and "D" with 430 lbs.

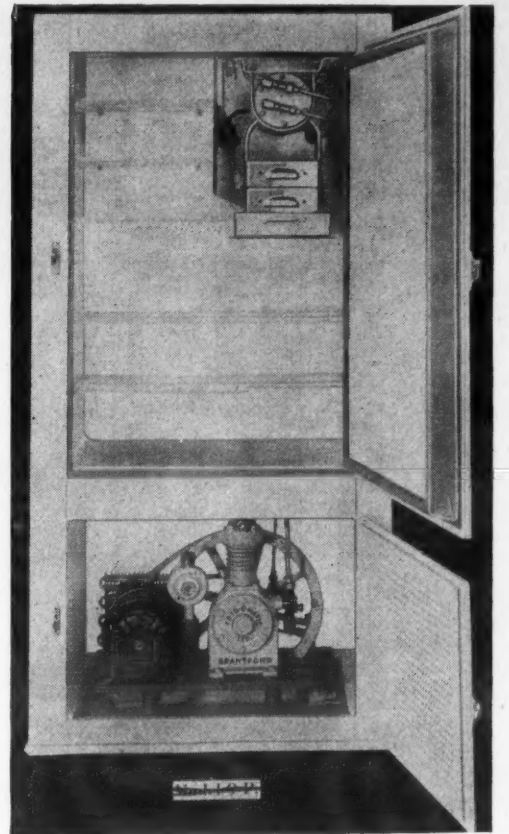
Previously the "A," "B," and "C," condensing units were assembled inside a rectangular coil of copper tubing, 85 feet long, but with the adoption of the finned tube condenser, a number of changes have been made in compressor equipment. The new machines have lower bases and crankcases and Model "D" has been added to give the line a larger range of capacity.



Compressor in the line developed by Frig-O-Matic, Ltd.

During the month of January Frig-O-Matic introduced three self-contained refrigerators. There are three standard models, a 6.5 cu. ft. box with white enamel inside and outside; a 6.5 cu. ft. cabinet with porcelain interior, and a 9 cu. ft. model with porcelain interior. These models are shipped from the factory completely assembled so that it is only necessary for the dealer to open the valves to start the machine.

A. E. Spowage, general manager of Frig-O-Matic, Ltd., reports that his company recently equipped the Renfrew Apartments and the Cavendish Court Apartments in Toronto. The former building has 32 suites in operation.

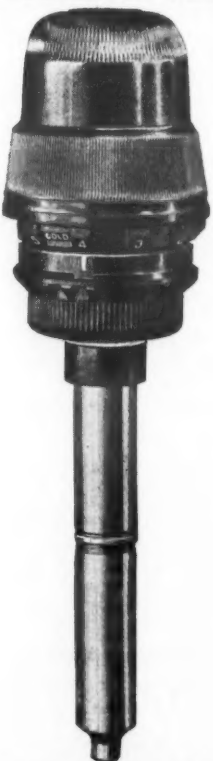


Frig-O-Matic self-contained model which is shipped to the dealer ready for installation. Three standard refrigerators are available.

to work when the freezing is completed. The larger or De Luxe models give four distinct temperatures without affecting the normal below fifty degrees temperature of the food compartment. There is the automatic fast freezing compartment for producing ice cubes, ices and frozen desserts in half the usual time; the normal freezing chamber, operating automatically, for making ice cubes, frozen desserts, etc., in the usual time; a 40 to 50 degree food compartment, also operating automatically, which always maintains the correct temperature for the proper preservation of foods; and there is a special cold storage compartment, below freezing, for keeping frozen fruits, meats and game over any desired period of time. These cabinet models are of new design, massive in appearance and constructed with heavy doors. Hardware is worked out in a tasteful, modernistic style. The cabinets are well-proportioned, having a convenient height that makes for accessibility. All porcelain panels are separated by rubber trim strips, which blend harmoniously with the design and at the same time protect the porcelain. Latches are trigger type and provision is made for locking. Rubber ice trays, which proved popular with the old models, will again be a part of new line equipment.

NEW ADJUSTABLE RANCO CONTROL

Provides an Ideal Temperature Range on Household Refrigerator



The Ranco Control for 1930 has many refinements and basic improvements which make it more than ever the ideal control for the modern household refrigerator.

Write for Information

The Automatic Reclosing Circuit Breaker Co.

COLUMBUS, OHIO U. S. A.

To Retail Salesmen:

Capitalize the nation-wide enthusiasm for Celotex Insulation

WHEN you talk Celotex Refrigerator Insulation to your customers, you have the weight of enthusiastic public acceptance behind your statements.

No technical data ... no long drawn discussion is needed to sell people on its value. The very name Celotex stands for effective insulation in the minds of the men and women from whom your sales must come.

Millions of dollars worth of national advertising has taught home owners how Celotex Insulating Cane Board resists the passage of heat.

Celotex Refrigerator Insulation is a special kind of Celotex ... fabricated by processes which increase its insulating efficiency to the highest possible degree.

Use the strong and ever increasing preference for Celotex insulation in every sales talk. Make this powerful selling point help you sell more refrigerators.

Your customers are always interested in the insulation of your cabinets. You'll find that their enthusiasm for Celotex Refrigerator Insulation leads into a successful closing.

1. *Can't settle or sag* ... Celotex Refrigerator Insulation covers each insulated area with a single board of exactly the right thickness. This insulation can never settle or sag. There are no seams or joints where heat leakage would occur.

2. *Strong, substantial cabinets* ... The great structural strength of Celotex reinforces the framework and walls of wood or steel cabinets ... gives them a solidity that adds to the life of the refrigerator. Yet the boards are so light in weight that mobility is not sacrificed.

3. *Clean, odorless, sanitary* ... Celotex Refrigerator Insulation is made of the long, tough fibres of cane, carefully cleaned and sterilized. These fibres are entirely odorless. No insulation is more sanitary than Celotex.

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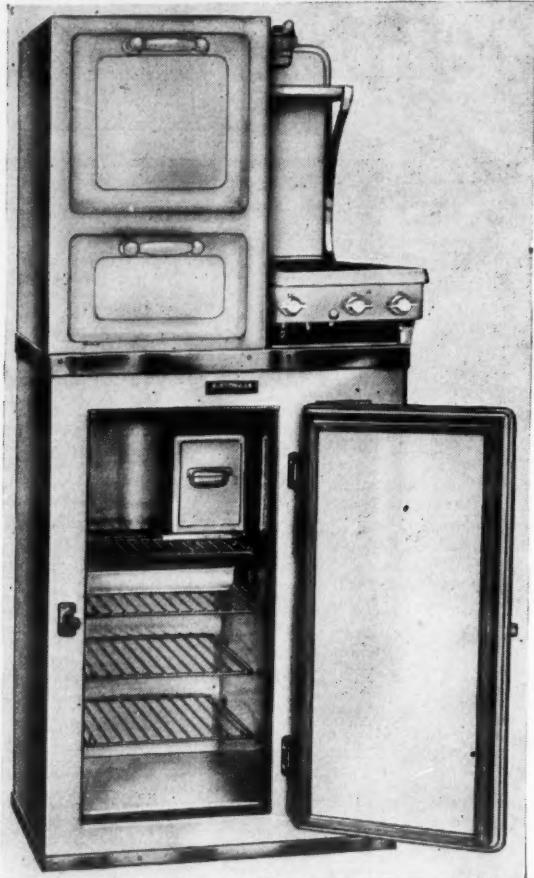
The word
CELOTEX
(Reg. U. S. Pat. Off.)
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CELOTEX

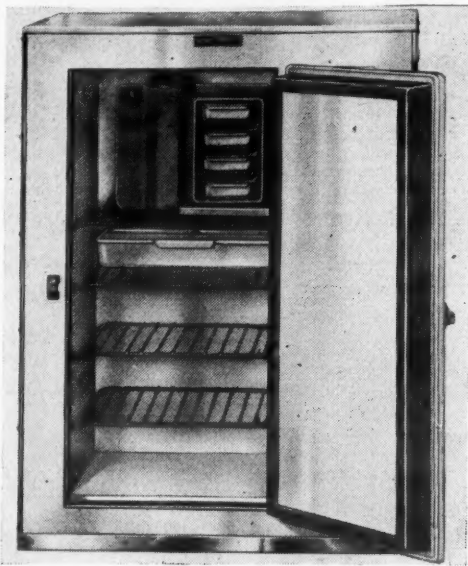
BRAND

INSULATING CANE BOARD

REFRIGERATOR INSULATION



The combination range and refrigerator pictured above has been added to the Electrolux line. (Right) Three foot model suitable for installation in small apartments.



Refinements That Aid Housewife

Electrolux

ELECTROLUX Refrigerator Sales, Inc., with headquarters in Evansville, Ind., is offering nine models this year to interest prospects in gas refrigeration. Two additions have been recently made to this line of gas refrigerators, Model EL-3A, the Brooklynite,

and Model EL-3, which is a combination range and refrigerator.

For users of small refrigerators, Electrolux has the EL-3, the New Yorker, and the new Brooklynite, both of which have three cubic feet of storage capacity. The former is a low compact model designed for the one room or kitchenette apartment, while the latter is about 55 inches in height. Model EL-4, with food capacity of 4 cubic feet, and Models EL-5 and EL-5B, with food capacities of 5 cu. ft., respectively, serve as intermediate models. The EL-5, which is about 31½ inches high, has a top that can be used as a serving or working table.

The line is balanced with two refrigerators, Models EL-7 and EL-10A, with seven and ten-foot capacities, respectively. The New Yorker and the Double Duty are also offered equipped with a gas range.

Several changes have been made in the cabinets which are being used this year. The legs of the cabinets, which were formerly finished in black, are now done in a gray color. The bar type shelf has been adopted as standard, and all hardware is heavily chrome plated brass. Liners are white vitreous porcelain fused on rust resisting metal. White lacquer has also been adopted as standard on all models.

Kelvinator

Servel

NEW additions have been made to both the domestic and commercial lines of Servel refrigeration equipment. At the 1930 sales convention held some time ago in Evansville, the new equipment was first introduced.

The Servel machine line this year carries all of the previous models current in 1929, namely, the 30-A, 30-AW, 50-A, 50-AW, 75-AW and 100-AW, and in addition the seven new compressors which have been designed to round out the line. The capacities of these machines range from 250 lbs. to 1,200 lbs. New Machines include Models 100-A, 24-C, 50-B, 65-A and 75-A, all of the air type, and Models 50-BW and 65-AW of the water-cooled type.

Supplementing the Servel line of tin all-copper chilling sections, one new size has been added, a Model K, which measures 4" x 21" x 25" and is designed for large commercial installations.

Servel this year offers a thermostatically controlled expansion valve to control refrigerant flow in all commercial applications. In effect, it is an expansion valve, bellows sealed, combined with a thermal element that prevents frost back. It is interchangeable with either high side or low side floats previously produced, and maintains correct pressure conditions inside the low side.

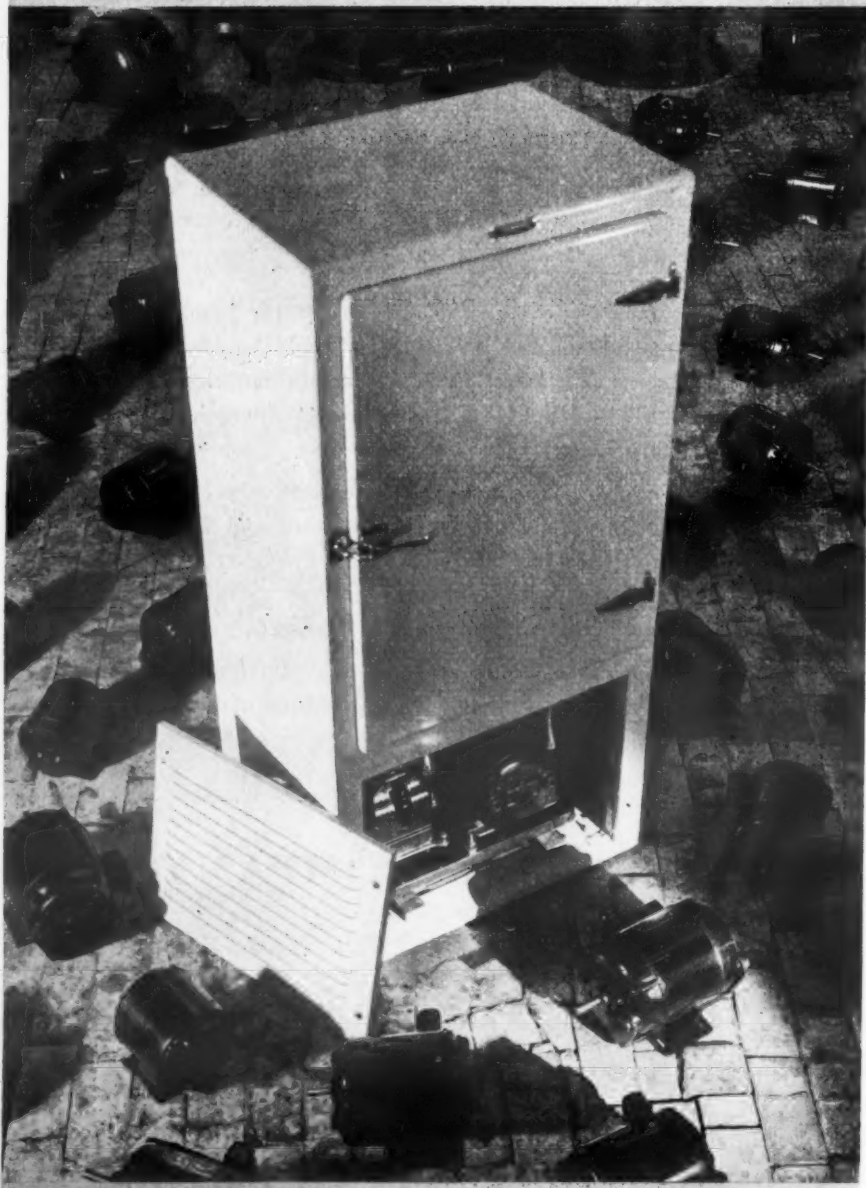
The new Servel water coolers are externally the same as the previous line, with exception of changes in fittings and finish.

The mechanical details of the cooling device are, however, materially changed. A porcelain lined drum holding approximately one gallon of water has a tubing coil attached around the outside in intimate contact with the drum. The refrigerant passes through an expansion valve into this coil and chills the water by conduction through the shell. The machine operation is controlled by a thermostat whose bulb is located in a well in the top of the drum. The expansion valve adjustment is accessible from a small opening in the top of the cabinet, as is the air vent. The thermostat is adjustable over a wide range.

Servel now offers a device to maintain two distinct coil temperatures on one machine. It operates on a snap principle,

Motor-minded Public

Electrical appliances are going into the American home at an ever increasing rate . . . the American housewife is becoming motor-minded. She knows motor troubles and demands better motor performance. Wagner Motors are setting a pace. Every year raises the standard of small-motor performance. Send your appliance requirements to Wagner.



Wagner,
Quality

Wagner builds every commercial type of motor and can recommend without prejudice.

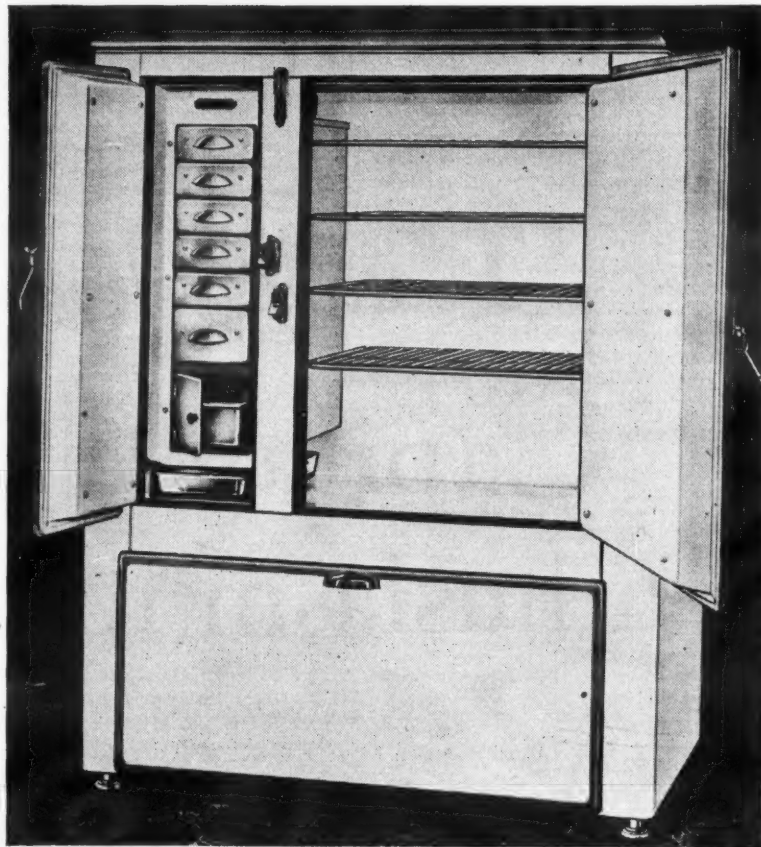
Literature on Request

WAGNER ELECTRIC CORPORATION

6400 Plymouth Ave., St. Louis

Sales and Service in 25 Cities

PRODUCTS . . . FANS; DESK, WALL, CEILING
TRANSFORMERS; POWER, DISTRIBUTION, INSTRUMENT
MOTORS; SINGLE-PHASE, POLYPHASE, DIRECT CURRENT



ESCO PRODUCTS Line-up for 1930

Built to operate with any refrigeration unit

ESCO MODEL "E" Electric Milk Coolers—for cooling and storing cans of milk, 8 sizes.

ESCO MODEL "B" and "BI" Electric Milk Coolers for cooling and storing bottled milk. 3 sizes.

ESCO MODEL "I" Ice Makers—for hotels, restaurants, country estates, etc.

Completely engineered, strongly built and attractively finished.

New Literature, Advertising Cuts and Mats now ready.

New Sales Manuals with complete data tables quoting correct ESCO Cooler and Compressor for any milk cooling job now available.

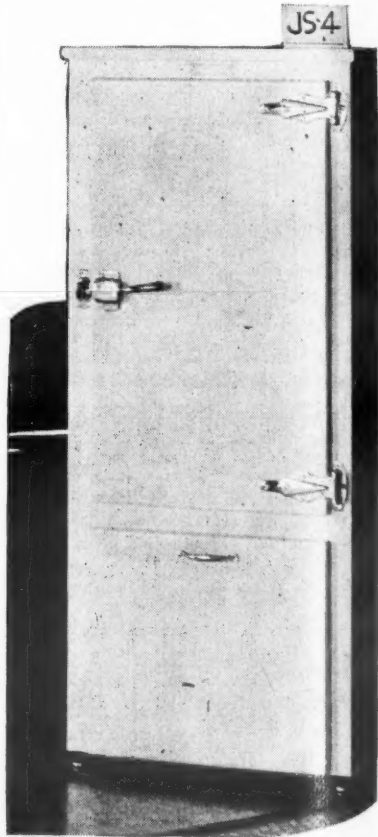
ESCO products are nationally advertised in leading dairy publications and farm magazines.

Equip your organization to secure its share of this highly profitable business.

ESCO CABINET COMPANY

World's Largest Manufacturers of Milk Coolers

WEST CHESTER, PA.



New Servel four cubic foot model added to the line a short time ago.

being always either completely closed or wide open, to give maximum compressor efficiency.

Extending the line of beverage cooling equipment offered last year, Servel presents the Model 2 Junior, combined with the 14-A machine and L-1 coil. This cooler is of the "self serve" type, holding 96 six-ounce or 65 fourteen-ounce, or 54 quart bottles.

DAVIDSON NAMED OMAHA'S "FIRST CITIZEN"

Omaha, Nebr.—James E. Davidson, president of the Nebraska Power Co., has been chosen Omaha's "first citizen" for 1929. As a reward for his civic activities in the community, the Omaha Post No. 1 of the American Legion accorded Mr. Davidson this honor on Feb. 11.

Mr. Davidson has been the fourth citizen of Omaha to be honored by the local legion post.

Mark 1930 Refrigerator Models

Copeland

FEATURING an exclusive system for cooling drinking water, known as the Copeland Water Chiller and the Copeland "Coldial," controlling the speed of refrigeration and provided with an automatic shut-off to prevent freezing of foods, Copeland's new line of electric refrigeration was shown to the public for the first time this week. According to reports from dealers, the new line met enthusiastic reception all over the country, with many dealers placing large orders to meet an instant demand.

In the Water Chiller is presented a device which permits the housewife to serve ice-cold water merely by the pressing of the faucet control. If she chooses, she may serve beverages from the same device, for it is easily removable for cleansing. A movable arm permits easy filling from a pitcher, while the faucet is affixed to a moving arm in a similar manner. Both close with the door, preventing damage should it be slammed while they are in a using position.

The Water Chiller is located in the space between the "Cold-Hold," which the freezing unit is now called, and the right hand side of the food compartment, which is ordinarily divided by a baffle. In place of the baffle is substituted a steel, porcelain interior and exterior tank, fitted with a cover. The tank will hold two gallons, which may be reduced 20 degrees in temperature in three hours' time. The water chiller is standard equipment on the De Luxe models and is supplied at slight extra cost on other models.

The "Coldial," with seven freezing speeds, is mounted above the ice cube trays, where it is easily reached without the necessity of opening the machine compartment, presenting a neat appearance. As an added feature, this is equipped with an automatic shut-off, which prevents the food compartment's temperature dropping below 32 degrees, thus preventing freezing of foods in the box should the housewife forget to decelerate the speed after freezing her desserts or ice cubes. With a room temperature of 80 degrees, a cold-hold temperature of 2 degrees was obtained in three hours.

The new Copeland Cold-Hold supplies reserve refrigeration, cutting down the running time and number of cycles and giving a hold-over of many hours in case the current is turned off or service is needed. The ice freezing temperature is maintained always below the freezing point, thus decreasing the freezing time of water or desserts. Owing to the form in which it is manufactured, it is easy to clean, eliminating the difficulties of the naked coil with its many soldered joints. The expansion valve is located on the outside, instead of being buried in the refrigerant, and is easily removable.

Eight optional colors are offered for tops in the De Luxe line, as follows: Oriental green, Pinard yellow, olive buff, King's blue, carmine red, dark Puritan gray or storm gray and Venetian pink. This is two more than in last year's line, the color scheme being worked out to blend in any color scheme the housewife may elect for her kitchen. The De Luxe line is also fitted with interior lighting, so that at the press of a button the food compartments are flooded with a bright light, making every corner plainly visible. A pilot light in front gives warning in case the housewife for-

gets to shut the light off when she closes the box.

One feature of the new line is the locked machine compartment. As this is under lock and key, all chances of an inquisitive child getting its fingers caught in the machinery are eliminated, and there is no danger of any unauthorized persons meddling with the unit. The unit is placed in the bottom compartment of the refrigerator. Louvers in the new Copeland line have been eliminated, enhancing the beauty of the cabinet.

All models in the new Copeland line are equipped with bar shelves of heavy steel, tinned and re-tinned, with the bars running from front to rear, providing a track for food and desserts and facilitating moving of the foods.

Copeland's domestic line this year includes three types, the De Luxe, the "P" line and the "A" line. The De Luxe line cabinets are all porcelain, inside and out, equipped with the "Water Chiller," the Copeland exclusive system for cooling water, as standard equipment, and with the Coldial. Interiors are electric illuminated and each is equipped with at least one double-depth tray for making ice in large cakes or for freezing desserts. Its hardware is two-tone chromium and eight color selections are offered for tops. This line is offered in four sizes of 6.6, 9, 11 and 15 cubic feet food storage capacity, the smallest one giving .6 cubic feet more capacity than the similar model in last year's line.

The "P" line is the new intermediate line and replaces the old "CS" models. This line is of white porcelain, inside and out, and with deep porcelain door pans. The hardware is of a new modernistic design and is chromium plated. Each model is equipped with Coldial, while the "Water Chiller" is available at slight extra cost in two-door models. The "P" line is offered in three sizes of 4½, 5½, and 6.6 cubic feet food storage capacity.

The "A" line represents the popular priced field and is offered in three sizes of 4.5, 5.5, and 6.6 cubic feet food storage capacity. All of these models are equipped with the Coldial and 6.6 cubic

feet size, known as the A-66, is furnished with the Water Chiller at slight extra cost. All of these refrigerators have porcelain interiors and lacquer exterior and are finished with chromium-plated modernistic type hardware.

An innovation this year is the shipping of all domestic types, with the exception of the two largest ones, direct from the factory ready for installation. The condensing unit and Cold-Hold are mounted in the refrigerators at the factory, tested and shipped direct ready for installation, leaving nothing for the dealer to do but to fill with anti-freeze solution, turn on the valves and fill the motor wells with oil.

Dry-Kold

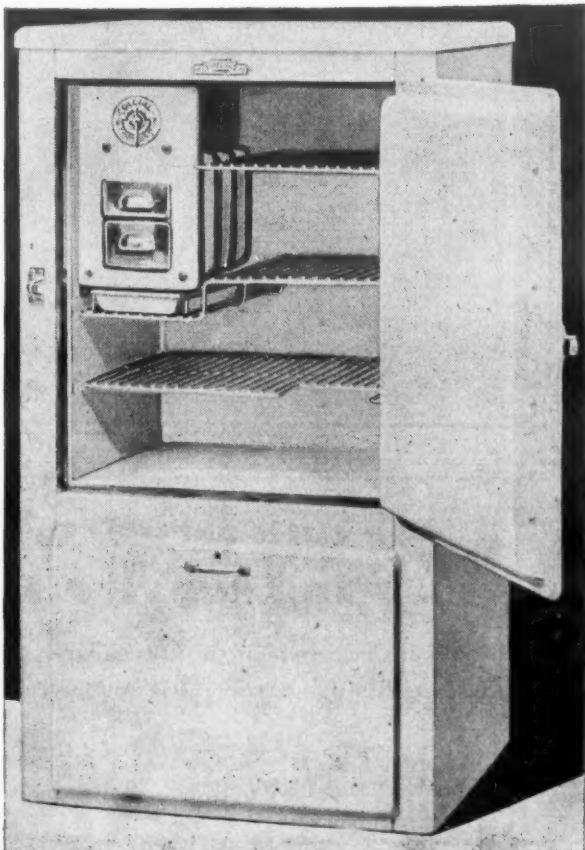
THE "Dry-Kold" Refrigerator Co., Niles, Mich., announces that it has augmented its line with a number of new refrigerator counters and three grocers' refrigerators. An all-porcelain counter for mechanical refrigeration is offered in ten- and twelve-foot lengths. This model has porcelain enamel steel interior lining and porcelain enameled steel exterior front, ends and top. Walls are five inches thick and insulated with corkboard. Plate glass baffles are in this model.

Other new refrigerator counter models are made with or without refrigerated storage base. These are designed for positive air circulation. Two models are finished in oak, while four have fronts and tops of porcelain and exteriors of oak.

In the grocer's line, three new refrigerators are adapted to mechanical refrigeration only. Model No. 10 has 53 cubic feet of storage space, while Models No. 20 and No. 35 have 81 cubic feet, respectively. These refrigerators have walls approximately four inches thick, insulated with two inches of packed Mineral Wool. Exteriors are of furniture oak, finished with spar varnish. Heavy doors with rubber gaskets are hung with strong hinges and fasteners of polished cast brass.



De Luxe Copeland model with Coldial and Water Chiller. (Below) One of the smaller Copeland models.



WARWICK INSULATED CONTAINERS and Equipment for

Holding, Shipping, Carrying
and Peddling

PERISHABLE FOODS

Warwick containers are built for any product requiring uniform temperature, such as meats, pork products, fish, dairy products, ice cream, bottled goods, medical supplies and flowers.

We fabricate sheet metal, fibre and canvas goods to specification and specialize in heat, cold and sound insulation.

Inquiries solicited.

A. E. WARWICK CO.
14 Franklin St. Stoneham, Mass.

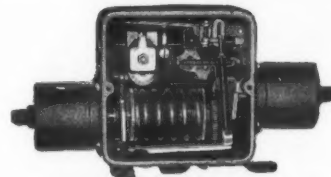


PENN

Automatic Controls for

Electric Refrigeration Systems

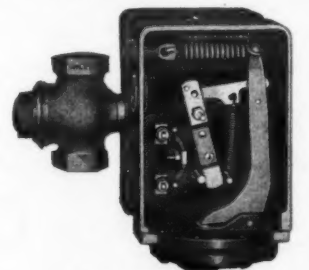
LEADING manufacturers of electric refrigerators, both commercial and domestic, prefer Penn Automatic Controls for dependability and low cost. They know that the Penn Laboratories are devoted exclusively to solving their automatic control problems, and the manufacturing of better control equipment. The complete facilities of the new Penn factory, and the accumulated experience of 13 years as automatic switch specialists are at your disposal. We are completely equipped to produce practically any type of electrical control which calls for temperature or pressure operation.



Penn Dual Control
Open view type LS for pressure regulation

Illustrated to the left is the Penn Dual Control which combines regular temperature or pressure control and safety cut-out into one compact unit. Designed for both commercial and domestic refrigerators, multiple hook-ups, and general commercial work.

Among other switches now produced in the Penn Laboratories, is a complete line of automatic control switches for ammonia systems. Their dependability has been proven in hundreds of tests and in actual operation. Yet they cost slightly less than other switches for the same purpose.



Open View Type XAR
Combination Water Regulator and
H. P. Safety Cut-Off

Illustrated to the right is the Penn type XAR High Pressure Safety Switch and Water Regulator for Ammonia Service. Acting as a high pressure cut-off, it insures safety to motor driven refrigerating plants.

Complete information and the Penn Catalog of Automatic Control Switches for electric refrigeration systems will be sent on request to manufacturers.

Penn Automatic Controls for Ammonia Systems include
HIGH PRESSURE SAFETY CUT-OFFS WATER REGULATORS
LOW WATER CUT-OFFS SWITCHES FOR SIGNAL ALARMS
LOW SIDE SUCTION AMMONIA CONTROLS

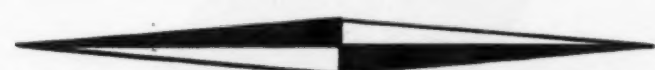
The complete line of pressure and temperature controls for commercial uses where gases other than ammonia are used, include
WATER REGULATORS HIGH PRESSURE SAFETY CUT-OFFS
DUAL CONTROLS

For Domestic Units
A complete line of low side suction and temperature controls.

An announcement of utmost importance to manufacturers of electric refrigerators has been issued by the Penn Laboratories concerning the development of a new, inexpensive control which incorporates the functions of temperature or pressure regulation, motor overload thermal cut-out, hand switch for starting and stopping, and outside temperature selector into one compact instrument. If you desire immediate information, write for details.

PENNELECTRIC SWITCH CO.

DES MOINES, IOWA

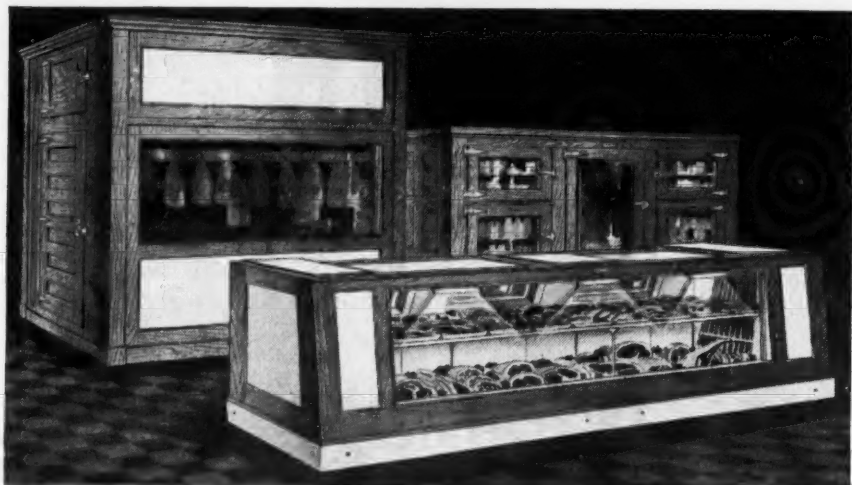


An organization of proven engineering ability that supplies the largest and best concerns of the country with automatic control switches.

REX COLE LISTS 425 APARTMENT JOBS

New York, N. Y.—Rex Cole, Inc., distributor for General Electric refrigerators, has published a small book, which

lists about 425 apartment houses in that territory that have been equipped with General Electric machines. The installations mentioned were made in the Boroughs of Manhattan, Brooklyn, Bronx, Queens, and the counties of Nassau, Orange and Westchester.



MAKE SURE you give 3 point refrigeration

IN food store refrigeration low temperature alone will not give satisfactory results. Low temperature alone will not keep meats and delicate, perishable foods wholesome and saleable.

Adequate food store refrigeration is a combination of three (3) essential factors. They are—

1. Uniform Low Temperature
2. Controlled Humidity
3. Natural Air Circulation

Controlled humidity and natural air circulation are in-built qualities of Gruendler Refrigerators. They are engineered for mechanical refrigeration. You can recommend Gruendlers with confidence.

Gruendler Display Counters, Coolers, and Grocery Refrigerators have been standard equipment in the food industry for a quarter of a century. The Gruendler nameplate is a guarantee of master craftsmanship and high quality.

A few desirable territories open for aggressive salesmen.

The Master Refrigerator Builders

GRUENDLER

REFRIGERATOR COMPANY

A Division of

ALLIED STORE **ASU** UTILITIES CO.

814-16 NORTH BROADWAY • SAINT LOUIS, MISSOURI

KEROTEST forged brass LINE VALVES

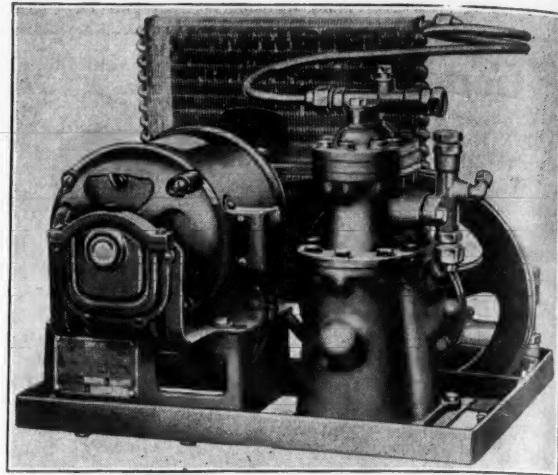
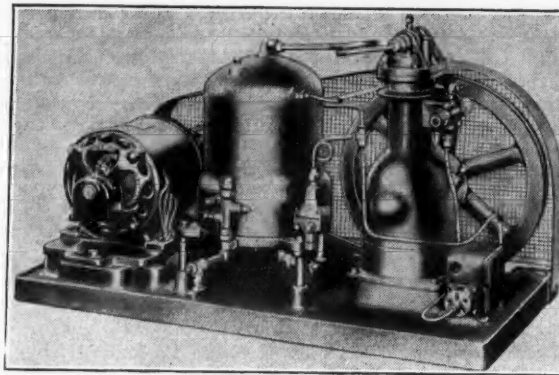
This Kerotest Type 210 is a double shut-off line valve of extra heavy construction designed especially for inflammable gas service. Has the original Kerotest style seal cap over the stem preventing leakage or the infiltration of air in vacuum systems and eliminating use of socket wrenches as well. An extra large packing chamber makes this valve much superior to the old style single packing type.

KEROTEST MANUFACTURING CO.
Pittsburgh, Pa.

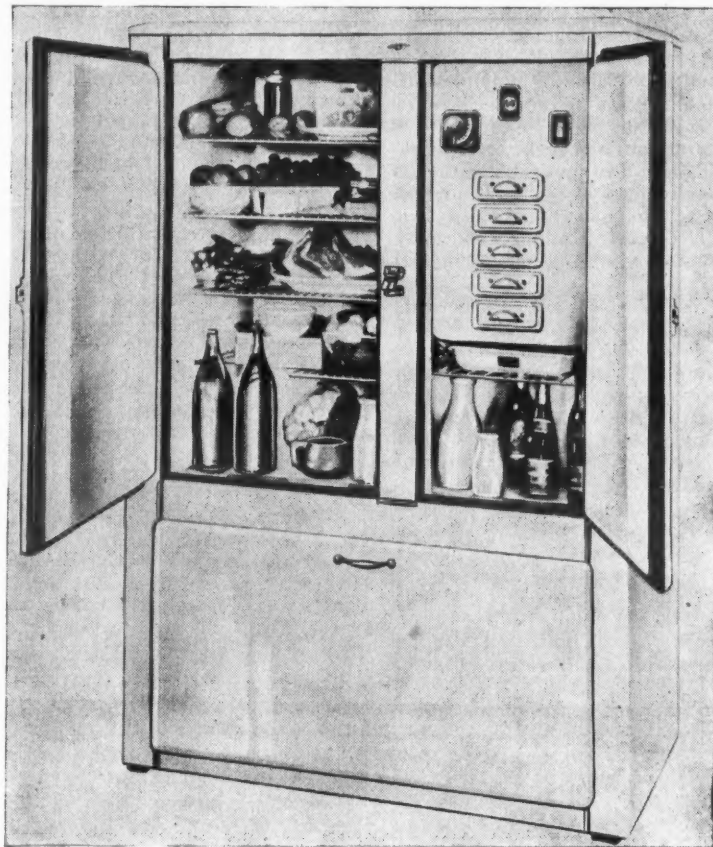
KEROTEST

Servel Machine Units

(Below) Compressor model 50-BW in the Servel line.
(Right) Model 24-C of the air-cooled type.



Merchant & Evans



THE Merchant & Evans Company, Philadelphia, entered the refrigeration field about four years ago with a very limited showing of domestic and commercial refrigeration apparatus. The company now has a large complete line of equipment.

During 1928 and 1929 sales showed an increase of slightly more than 100 per cent over the previous year, and the company is entering 1930 with definite orders on its books for 1930 delivery that show a factory production of approximately 300 per cent more than 1929.

The domestic "M & E" line includes cabinets of 4, 5, 7, 9, 11 and 15 cubic foot capacity. One of the features of the new domestic line is the "Visible Cold Meter" and a "Safety Thermo and De-frosting Control," both of which are on the freezer panel, where the user may have easy access to them.

The Cold Meter has six different freezer speeds, between each of which there is a difference in temperature of approximately two degrees.

The new De-frosting Control also serves as a safety switch, should there be an overload on the motor. This switch will automatically cut out, thus eliminating the necessity of changing fuses or of going to any trouble in order to de-frost.

Merchant and Evans have developed a new small compressor unit, 100-D, for refrigerating any model cabinet up to and including ten cubic feet total capacity. This compressor unit, using SO₂, has 100 pounds ice melting capacity. This is the compressor that the

company is now furnishing to assemblers and box users in different parts of the country for use under their own name.

In addition to the 100-D compressor, the domestic line will also use the RMC and the RLC compressors. Three new compressors—No. 275-C, No. 350-C, and 800-C—have been added to the commercial line. The 275-C is of compact construction, and takes up less space than the 1929 models, heretofore used for the same type of commercial work.

The domestic line includes a number of selling features. In addition to the cold meter and de-frosting control, the all-porcelain boxes will have a vegetable bin as standard equipment, and other novel features include cold water reservoir and interior dome light with switch. The all-porcelain boxes have chrome finish hardware.

The distributors and dealers of Merchant and Evans Company will hold their annual convention at the factory at Lancaster, Pa., on February 28. It is anticipated that between 200 and 300 "M & E" representatives from eastern seaboard cities will attend.

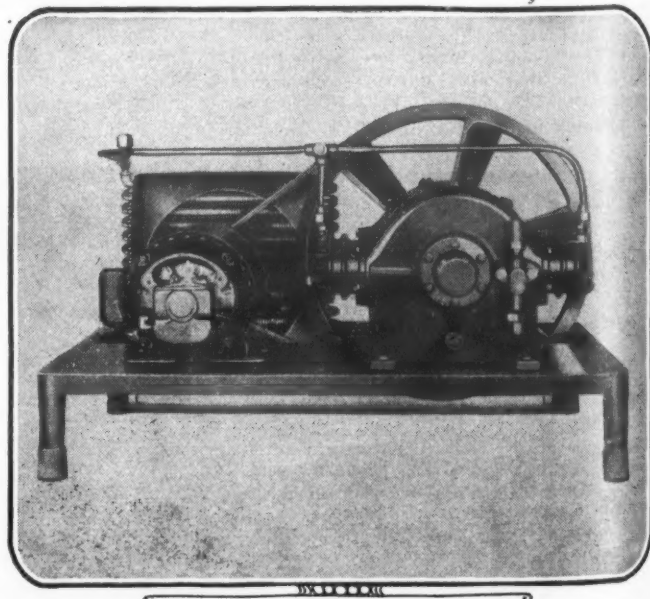
IcElect

CONDENSING units with larger ice-melting capacities are now included in the equipment which the IcElect Corporation, Omaha, Neb., is manufacturing for multiple and commercial installations. Three models made in two sizes each have capacities ranging from 210 to 1,780 lbs. capacity. They are of the reciprocating type and have two cylinders. V-belt drive is used on all the condensing units which are of the air-cooled type. Valves are of the poppet or mushroom type, with a hollow stem made of Monel metal.

Models B240, with 440 lbs. capacity, B300, with 510 lbs., C240, with 1,354 lbs., and C350 with 1,780 lbs., were added to the IcElect line. Refrigerating systems using all the models have been developed for installation in apartment houses, display counters, meat coolers, soda fountains and ice cream cabinets. Evaporators are available for both domestic and commercial installation.

A cylinder type evaporator has been developed by this company for use in ice cream cabinets and soda fountains. Two corrugated cylinders, spaced one-eighth of an inch apart and welded on the ends, form the cooling unit. The space between the two cylinders accommodates about one pint of refrigerant.

Condensing unit made by IcElect for commercial or multiple installations.

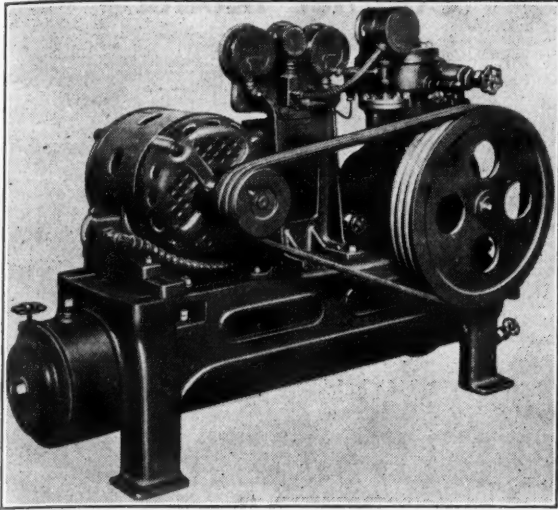


Copper, Brass and Bronze Parts give lasting service.

For authoritative information about the uses and proper application of these metals in electric refrigeration, consult

COPPER & BRASS
RESEARCH ASSOCIATION
25 Broadway, New York

American Engineering



CONDENSING units from 1/4- to 4-ton capacity are available in the line of refrigerating equipment offered this year by the American Engineering Co., Philadelphia, Pa. Juruick models are compact, bases being of one-piece construction, and condensers are welded. All gauges face in one direction. Standing before the machine one can read the pressure in the high side, pressure in the low side, temperature of the cooling water, level of oil in crankcase,

and amount of ammonia in the receiver. From the same position one can operate all the necessary valves or controls on the machine. Shut-off valves and valves for defrosting, or control for starting and stopping machine can be operated from this position.

The Juruick Cub was recently added to this line. This is a small self-contained condensing unit which is shipped complete and ready for installation by the dealer in the field.

Zerozone

Improvements in the 1930 Zerozone line are the secondary seal and uniquely applied temperature regulator. The Zerozone secondary seal has been developed to eliminate any possibility of a seal leak or a seal squeak. An inner chamber, which is filled with a lubricant, is provided between the inner or conventional type seal and the outer and non-metallic seal. This provides lubrication to the seal at all times and prevents the entrance of air to the low side of the system. The secondary seal is an exclusive Zerozone development, and it eliminates a possible source of refrigerant loss.

A new type of an evaporator has been developed in which it is possible to accelerate the freezing of ice cubes and frozen desserts. This new evaporator has a unique coil arrangement, which limits the boiling action to a restricted area and prevents agitation of the float. The number of tubing connections has been reduced to a minimum, affording a maximum mechanical strength. This coil has been designed to meet the public's demand for quick freezing of frozen desserts and ice cubes without requiring any undue demands upon the compressor. This coil will be adaptable to all multiple applications.

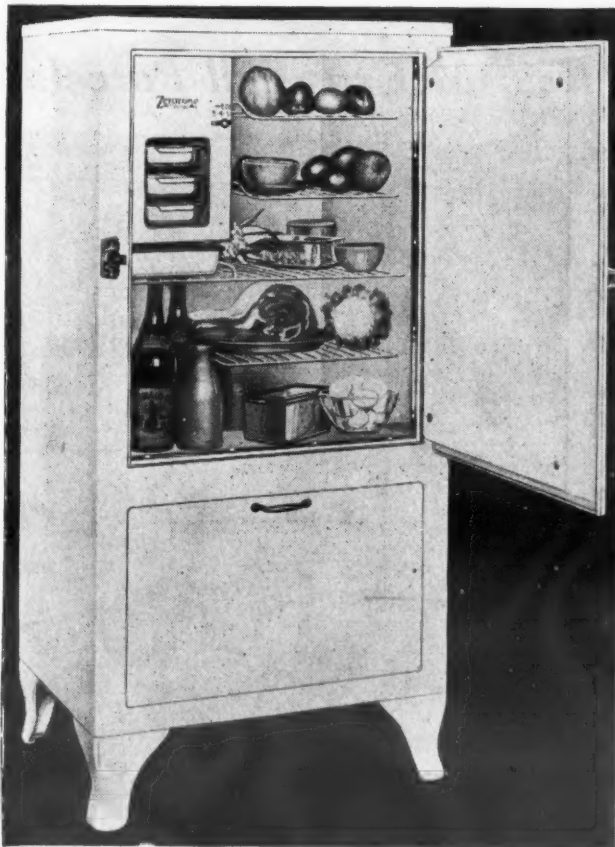
The new Zerozone line will be equipped with a temperature regulator right on the cooling unit, so that the user can regulate the freezing speed by a simple movement of a lever that is cleverly hooked up with a dial or indicator right on the coil front. In addition to its accessibility it is so uniquely designed

that it can be installed in a few minutes without the use of tools. It is a compact, sealed assembly and not subject to service in the field. The control affords a choice of five freezing speeds.

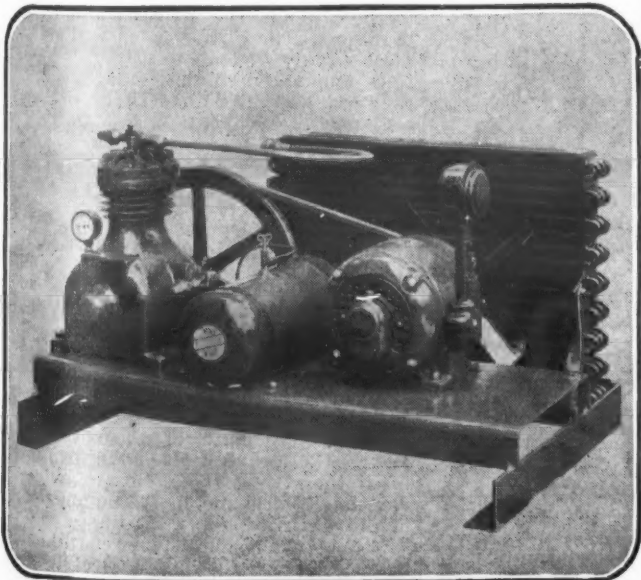
The Zerozone all-steel cabinet Model 49, pictured on this page, is furnished with high legs, providing accessibility in cleaning. Its construction also allows it to be built into standard kitchen cabinet equipment. This model is furnished with lacquer exterior and porcelain interior.

The entire line of the 1930 Zerozone cabinets includes a complete Duco line and an all-porcelain line, with a soft gray porcelain body, with doors, top and machine compartment in white porcelain.

Zerozone cabinet equipped with temperature regulator.



Glenn Dairy Icer condensing unit marketed by the Dairy Refrigeration Co. of Milwaukee.



Dairy Refrigeration

precision built Motor, Transmission, Eccentric and Crank Shafts

Made to your specifications. Send us your blue prints—We will send you our prices.

MODERN MACHINE WORKS, INC.
MILWAUKEE, WIS.

196 Milwaukee St.

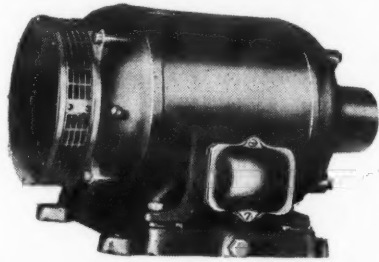
There is also a De Luxe line, with models insulated with 3 inches of Dry-Zero. The Duco and Junior all-porcelain lines are insulated with 2 inches of Dry-Zero.

The De Luxe line is equipped with a dome light, porcelain vegetable bin, temperature regulator, and a water tank. This tank, constructed of white porcelain, is easy to clean, as it is entirely removable. It is no effort to fill, as the trombone at the top moves forward to receive water. Water is drawn by the simple action of pulling the faucet downward. Returning it to an upward position shuts off the faucet. A gauge indicates the amount of water in tank. This convenience is standard equipment on the De Luxe line, and optional at slight extra charge on the Junior porcelain line.

Century

THE Century Electric Co. of St. Louis, Mo., has recently developed a line of totally-enclosed, fan-cooled motors. These motors are offered in most ratings and stator, rotor and other internal parts being completely isolated from the outside air for the protection from dust and dirt.

Ribbed cast-iron guards enclose the



motor. Fan and fan housing are externally mounted on the front end of the motor, opposite the pulley end. The cooling air is drawn in at the pulley end, circulated around and over the rear coil guard, through the air passages between the field core and the frame, out over the coil guard on the front end, and discharged into the air through the fan and fan housing.

SPECIALISTS in FORGED BRASS FITTINGS

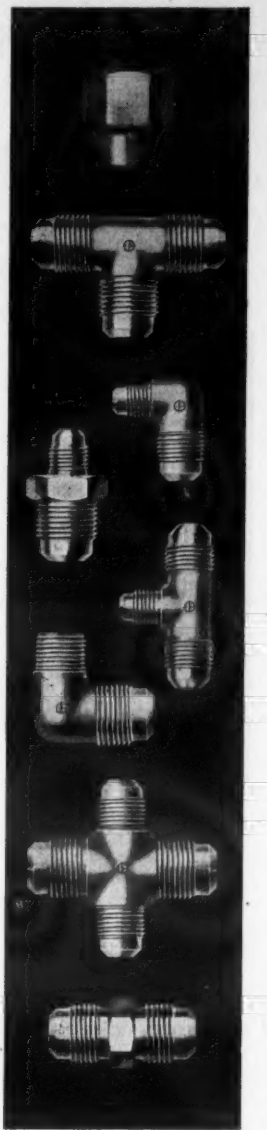
During eighteen years of specialization on the production of seepage-proof brass fittings we have become the preferred source of supply of leaders in the automatic refrigeration industry.

Our customers are assured of non-porous; accurately machined; closely inspected and carefully packed fittings which are

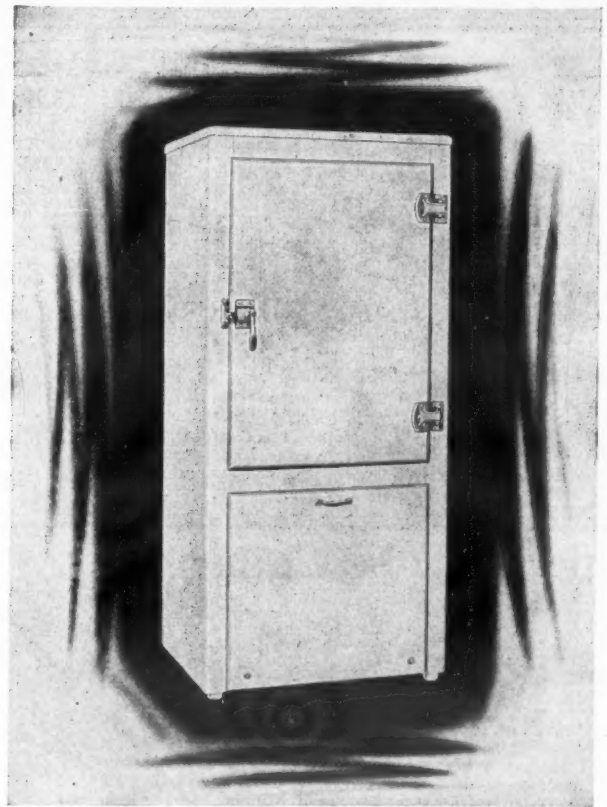
"Built Right -- to Stay Tight"

Catalog No. 36 is a complete guide to fitting comprehensiveness. A copy is yours for the asking

COMMONWEALTH BRASS CORPORATION
Commonwealth and G. T. R. R.
DETROIT, MICH.



Increasing in Popularity!



The new LP-H40 Model Universal Cooler

THIS new model Universal Cooler is finding a ready market. Buyers everywhere are immediately impressed by its attractive lines—porcelain interior with well rounded corners—satin finish hardware—and well planned shelf area. Of course it is just the right size for the majority of apartments and homes, is strictly self-contained and is shipped completely assembled ready to be plugged into any light socket.

This model is being offered at a very attractive price as a leader to our regular line. May we send you full particulars?

Universal Cooler Corporation
Detroit, Mich. - - - Windsor, Ontario, Canada

The Filtrine Filter

assures pure, clear water from your

ELECTRIC

Water Cooler

WRITE FOR DETAILS

FILTRINE

MANUFACTURING COMPANY
49 LEXINGTON AVE. Brooklyn, N.Y.
Manufacturers of filters and coolers of all sizes.

Modern Market Equipped by Dry-Kold



THE Bright Star Market, in Chicago, is increasing its sales of perishable products through their proper display in refrigerated counters. This market was completely equipped recently by the "Dry-Kold" Refrigerator Co., which is located at Niles, Michigan.

In this market a uniform scheme has been followed out in the installation. At the rear of the room is a meat cooler ten feet wide, fourteen feet deep, and ten feet six inches high, with adjoining partitions on each side extending to the walls of the room. On both sides of the

room, extending the full length of the walls, paneling matching the front of the meat cooler is installed. Meat hanging rails are on the left side, attached to the paneling.

Along the left side of the room and in front of the meat cooler extends sixty feet of "Dry-Kold" all-porcelain display case arranged as a single unit.

The wall paneling and meat cooler front are fitted with mirrors and broad panels of white opaque glass. The wood finish is oak, stained black and waxed, a very effective treatment.

The refrigerators and display cases included in this installation are cooled by an electrically driven ammonia compressor of five tons capacity, installed by Reliance Refrigeration Co., Chicago, Ill.

REX COLE LEASES NEW BRONX QUARTERS

New York, N. Y.—Rex Cole, Inc., General Electric refrigerator distributor, has leased the premises at 2392 Grand Concourse as its new Bronx headquarters. Formerly occupied by Durant Motors, the new display room is situated two blocks south of Fordham Road.

The inadequacy of the distributor's present quarters at 307½ East Kingsbridge Road to meet the demands of the growing Bronx market, was given by Mr. Cole as the principal reason for the move.

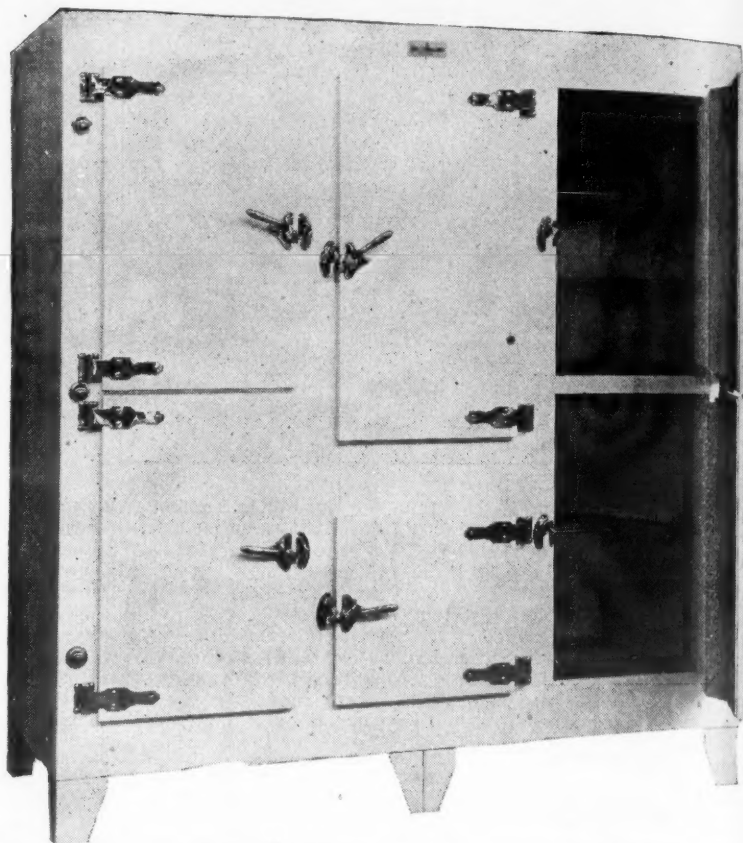
Complete renovation of the property according to plans of Raymond Hood, Godley and Foulhoux, architects, is under way. Quite in keeping with the so-called modern tendency in store decoration, the designs call for a solid front of plate glass to a height of one and a half stories. Flood lighting and unusual interior treatment promise to make the new showroom particularly attractive.

TEXAS MEN TURN IN \$468,000 IN ORDERS

Dayton, Ohio (UTPS)—Orders to the amount of \$468,000 were turned in by 600 Frigidaire Corporation salesmen attending the Texas regional convention, according to word received here February 14 from Dallas, Tex., where the men gathered.

With this business turned in, the state is 40 per cent ahead of the quota set for it by the corporation for the year to date.

Lorillard Manufactures Large Cabinet Model



ONE of the new models offered by the Lorillard Refrigerator Co., of Kingston, N. Y., is a six-door cabinet, which has a total food capacity of 47.47 cubic feet. This model has an iron interior and weighs about 1,200 lbs. shipping weight. Either ice or mechanical refrigeration can be used in this model, which is designed for commercial installations of the small type in markets and groceries.

HEATING AND VENTILATING MEN HOLD EXPOSITION

Philadelphia, Pa.—The first International Heating and Ventilating Exposi-

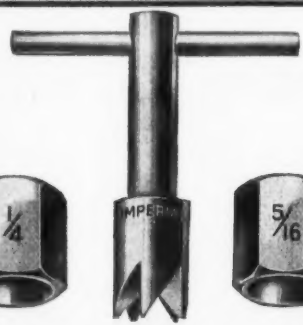
tion was held recently at the Commercial Museum here. Heating and ventilating experts from all over the United States and delegates from foreign countries as well were on hand to view the exhibits and attend the sessions.

Among the newer contributions to the human comfort in the house, the theatre and the factory were various humidifiers and atmospheric cooling plants on display.

The Carrier-Lyle Engineering Co. displayed its commercial cooling systems, and a "Thermal" factory unit was shown operated by a Frick ice machine.

L. A. Harding, of Buffalo, was elected president.

Five Aids To Better Installations



IMPERIAL REFACING TOOL

This new Imperial Tool insures against leaks caused by S. A. E. couplings that do not seat properly. When scratches or other blemishes prevent an absolutely tight seat, the coupling may be refaced in a few moments with the Imperial Refacing Tool. Thus the practice of throwing away fittings and valves with damaged seats is eliminated. In use, the coupling is inserted into the correct adapter; then a few turns of the five-fluted hardened steel refacer will produce a faultless seat of just the correct size and taper for an absolutely tight and leak-proof joint.

No. 100-F Refacing Tool with adapters for sizes ¼", 5/16", ¾", 7/16" and ½". Per Set....\$3.75



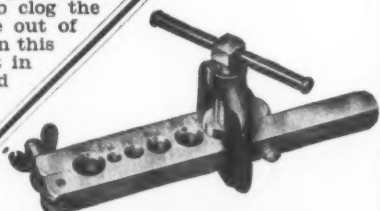
Imperial Tube Cutter



Here is a highly efficient tool for cutting copper, brass, block tin and lead tubing. It takes all sizes of tubing from ¼" to ¾" and makes a right-angle cut, quickly and cleanly, leaving no burrs or chips to clog the line. The tubing does not become out of round as when put in a vise. When this tool is used, tubing can be cut in half the time required by old methods and a far better job results. No. 94-F Tube Cutter, each

Brass
Forgings

\$2.50



Imperial Flaring Tool

The Imperial Flaring Tool gives the proper flare and taper to the tubing for making up joints. A perfect flare means a tight joint, and this tool does the work in the least time and with the utmost simplicity. No loose dies—no vise necessary. No. 93-F takes tubing sizes 7/16", 3/16", 1/4", 5/16", 3/8", and 1/2", each. \$3.00
No. 95-F takes tubing sizes 1/4", 5/16", 3/8", 1/2" and 5/8", each. \$4.00

Accurately made to meet all the requirements of Iceless Refrigerator Manufacturers. Will not leak. Let us quote on your requirements.

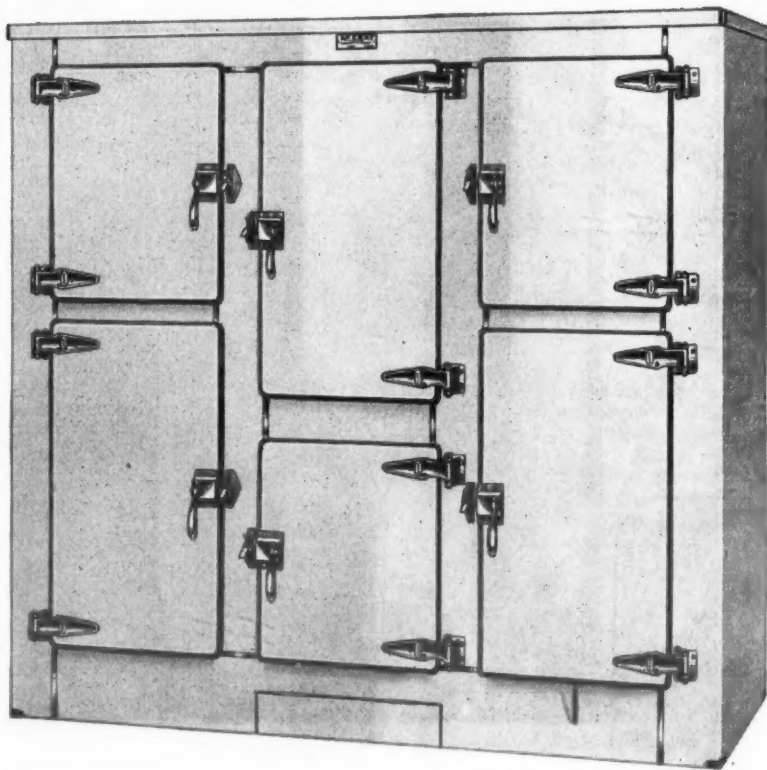
Imperial Tube Bender



Here is a simple but most efficient device for bending tubing to any degree desired. This tool was developed in our laboratory after many tests with every method known for bending tubing. With the Imperial Tube Bender a clean, workmanlike bend can be produced in a few seconds. This tool is light in weight and most simple to use. It consists of a coil of spring steel wire, with a flare at one end. To use, it is merely slipped over the tubing and brought to rest at the place where the bend is to be made. Then both tube and coil are bent by hand to whatever form desired. Seven Tube Benders comprise a complete set and each is strongly made, cadmium plated and will last a lifetime. No. 101-F Tube Bender Set for tubing sizes, ¼", 5/16", ¾", 7/16", ½" and ¾". Per Set.....\$2.75

THE IMPERIAL BRASS MANUFACTURING CO.
565 SOUTH RACINE AVE. CHICAGO, ILL.

New McCray All-Porcelain Commercial Refrigerator



This is a National Message to the
American Housewife

Get the most out of your ELECTRIC, GAS or ICE Refrigerator

Send \$1.00 for the two big 50c rolls (West of Missouri and South Coast States 60c per roll, both for \$1.20 postpaid).
FREE: When ordering mention this ad for a Miracle Paper Dish Rag and interesting samples for You and Your Friends.



STANDS FOR "THE WORLD'S MODEL PAPER MILL"
KALAMAZOO VEGETABLE PARCHMENT CO.
KALAMAZOO MICHIGAN U.S.A.

MANUFACTURING WORLD-WIDE FAMOUS FOOD PROTECTION PAPERS

YOUR refrigerator will serve exactly and according to intelligent use and operation, and your palatable, health building foods will speak for themselves when served.

Are you using both KVP Refrigerator Papers? Try the famous pair—Heavy Waxed Paper in "Cutter Box"—it seals tight (one sheet will do) keeps the moisture in or keeps the moisture out as desired. However, remember all foods should not be wrapped in Waxed Paper—for 100% results you also need KVP Household Parchment, the waterproof paper for cooking and for wrapping all moist, greasy and wet foods—a cheesecloth substitute (you can boil it) like a rag when wet—use it again and again—it wears.

Try your Grocer, Stationer, Hardware, Department Store and Neighborhood Merchant first; if they cannot serve you KVP will pay the parcel post.

If you are in any way interested in Electric or Gas Refrigeration read the above over twice because it will mean much to you... this is our National message to the American Housewife in cooperation with your refrigerator sales campaigns. Write for samples and advertising ideas that sell your refrigerators to new customers and keep old customers interested

THE McCray Refrigerator Company, whose factory is located in Kendallville, Indiana, has just announced a new series of porcelain refrigerators. These new models have white porcelain interiors and exteriors, and blue-gray trimming, with modern design hardware.

The walls are approximately 5 inches thick, heavily insulated with 4 inches of corkboard sealed with hydrolene. The framework is of rigid construction.

At the present time the new line comprises three models; the larger of the three has a cubic foot capacity of 56.5, the next has a cubic foot capacity of 43.2, and the smallest has a cubic foot capacity of 36.6. There are studs provided already in the cooling chamber for ready installation of mechanical refrigeration unit. The largest model has six shelves, the intermediate nine shelves and the smallest also has six shelves. These models were designed for hospitals, clubs, institutions and restaurants. These models, according to the February issue of the *McCray News*, were announced to the trade by H. M. Stewart, general manager, for delivery beginning February 15.

OHIO DEALERS MEET NEW DISTRIBUTOR

Toledo, Ohio—More than 75 General Electric dealers in 44 counties in Northwestern Ohio, Michigan and Indiana met in the Fort Meigs Hotel Feb. 15. This was the first general meeting of all the dealers under the supervision of the H. G. Bogart Co., Toledo, General Electric distributors, who moved here recently from Akron, Ohio. It was the first opportunity of many of them to meet Harold G. Bogart, head of the firm, and his father, Herbert G. Bogart, who is associated with him in the management of the company.

M. A. Mahoney, assistant general sales manager of the General Electric Co., Cleveland, addressed the group and outlined spring selling plans.

REFRIGERATION RUBBER WARE

Specializing in the development and manufacture of hard and soft rubber parts for electric refrigeration.

THE AETNA RUBBER CO.
ASHTABULA, OHIO

Belding-Hall Announces New Line of Cabinets



THE Belding-Hall Company, Belding, Mich., announces a line of new commercial refrigerator cabinets, built especially for electric refrigeration.

The design of these cabinets provides a positive circulation of cold air in the cabinet. A provision is also made for controlling the humidity of the air.

These cabinets are made in an exterior finish of oak, with spruce lining; lacquer finished auto body steel with galvanized iron lining—each type being built in three sizes of approximately 44, 68 and 81 cubic feet capacities.

LARGE INSTALLATION IN ARCADE MARKET, CHICAGO

A RECENT complete market installation by the "Dry-Kold" Refrigerator Company, whose plant and main offices are in Niles, Michigan, is in the Arcade Market, South Bend, Indiana. Meat coolers, refrigerator display cases, florist's refrigerator and all other fixtures are by "Dry-Kold," being all of white porcelain finish with Monel metal trim.

The meat cooler, with a large plate glass display window across the front, is eight feet wide, ten feet deep and ten feet six inches high. There is a supply storage cooler in the basement. In the meat department there is a display refrigerator, Model 8710, forty feet long. In the delicatessen department there is a display case of the same model twenty feet long. In the florist's department there is a display refrigerator eight feet wide, three feet deep and nine feet high, Model F-1896. The refrigerators are cooled by a York compressor of ample tonnage capacity.

RECO ELECTRIC MILK COOLING

"The Boiler Plate Cabinet"
DOMESTIC UTILITIES
Division of the Refrigeration Corp. of Maryland
ARLINGTON, BALTIMORE, MD.

WELCOME to
NEW YORK and
The HOTEL
GOVERNOR
CLINTON
31ST ST. AND 7TH AVE.
opposite PENNA. R.R. STATION



1200 Rooms
each with
Bath and
Servidor
ERNEST G. KILL
Gen. Mgr.

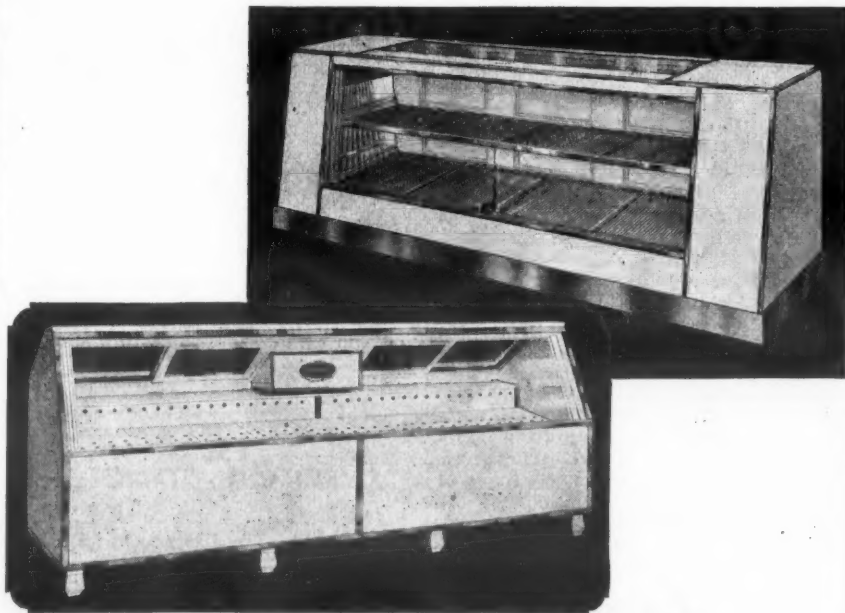


ROOM AND BATH 3⁰⁰ UP

Service

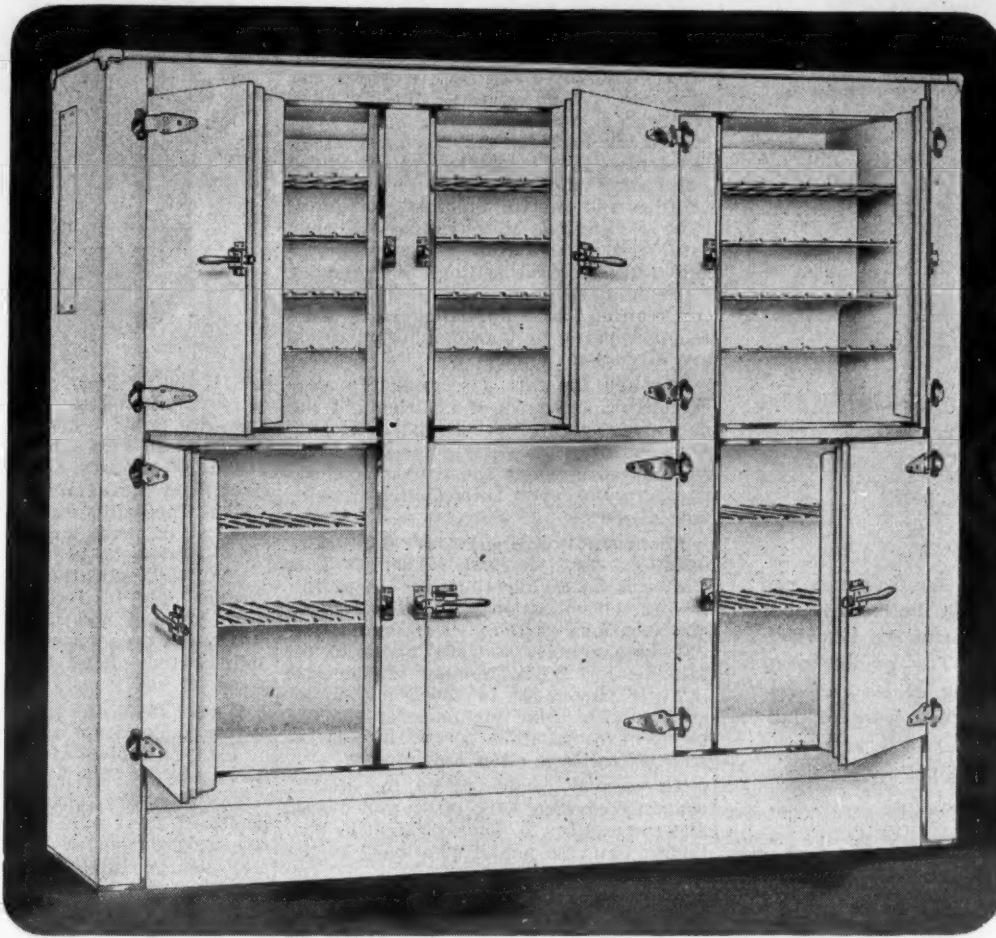
A quick sale was recently consummated by John Morgan of the Pinellos Electric Refrigeration Company, of St. Petersburg, Fla. This particular sale required only 50 minutes to take the order and install the General Electric refrigerator. At 20 minutes to 5 Mr. Morgan had the customer's name on the dotted line in his order book. At 5:30 the machine was installed and running in the customer's home.

Dry-Kold Has New Refrigerator Display Cases



Two display counters announced by the "Dry-Kold" Refrigerator Co., of Niles, Michigan.

Gibson Now Producing New Models for Food Shops, Hotels and Restaurants



GIBSON Refrigerator Co., Grandville, Mich., are now in production on their new line of commercial refrigerator cabinets for use with mechanical refrigeration.

All of the cabinets have a positive circulation of cold air through the entire food compartments and a balanced moisture control. These cabinets are made in three popular sizes of 44, 68 and 81 cubic feet capacities, and are finished in an exterior of oak, lacquer finished steel, and porcelain.

The model pictured above is designed for installation of cross fin coils or zero tube cooling. The six doors are equipped with heavy hardware. The new models are offered to meet the needs of food shops, restaurants and hotels.

SPEAR'S Milk-Cooling Cabinets



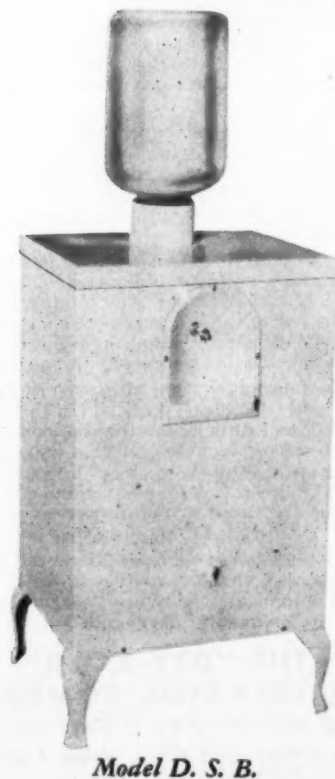
From One to Ten Cans Capacity

Ice Makers
25 Lb. to 500 Size

Water Coolers
For Every Purpose

Originators of the
Spear One Pipe
Circulating System

Refrigeration Div.
JAMES SPEAR
STOVE & HEATING
Co.
PHILADELPHIA



Model D. S. B.

M & W CO.
1876

LACQUERS
ENAMELS

A Lacquer Finish that Has Stood the Test

M & W REFRIGERATOR
LACQUER ENAMELS

A Quality Reputation on these products has been established through actual large quantity production on Cabinets widely distributed throughout the world. Another complete M & W Finish, including either Lacquer or Oil Primer, followed by M & W Lacquer Enamel in White or Colors. We invite your correspondence regarding your particular problems.

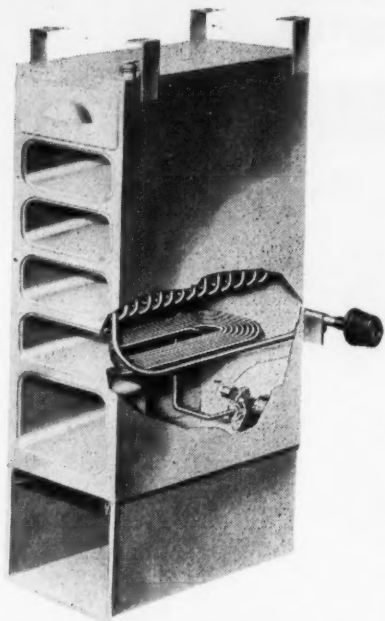
MAAS & WALDSTEIN CO.

Executive Offices and Plant, 438 Riverside Avenue
NEWARK, N. J.

Chicago Office
and Warehouse
1115 Washington Blvd. West

Los Angeles Office
and Warehouse
1214 Venice Blvd., Los Angeles, Calif.

Iso-Thermic Tubes



Four different temperatures can be maintained in the twelve models which comprise the 1930 Kelvinator line. The compartment for fast freezing of ice and deserts has a spiral coil of Iso-Thermic tubes which acts as a cold plate.

described in a book, "Increasing the Load," issued some time ago by the McCall Company, 230 Park Ave., New York City. In this book actual experiences of utilities companies in the merchandising field are cited to add weight to discussions relating to this phase of the business.

Among the questions considered are "Merchandising Utilities," in which the three major factors responsible for electric service companies being in the merchandising business are discussed. This is followed by a brief dissertation on the purchasing methods of a number of utilities and several holding companies. "The Selling of Merchandise" is next considered and here the problems of outside selling, rural selling, and district representative plan, which combines meter reading and appliance sales with minor repairs to household appliances, are discussed.

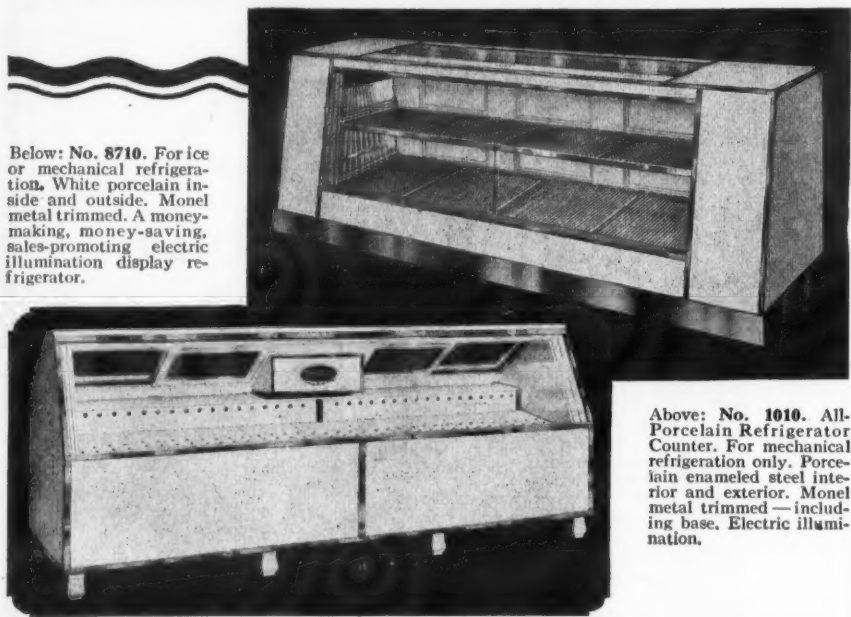
Through the text describing the merchandising activities of utilities and the data which follows are a number of photographs of retail showrooms of central stations throughout the country. These photographs cover both floor and window displays.

About eighty-five pages are devoted to data on the electrical industry. This data can be divided into the three following classifications: 1. The names and locations of those cities and towns in which central stations maintain retail stores. 2. The number of domestic lighting customers in those places, together with their populations. 3. The per cent of families served by central stations in those cities and towns.

The survey conducted by the McCall company covered 4,185 cities and towns, and the number of domestic lighting customers in these places mentioned in the book are as of January 1, 1929. Of the 1,325 municipally owned lighting in this country about a year ago, figures are given showing the number of customers of 482 of these plants.

Selling By Utilities

MERCHANDISING activities of central stations operating retail stores in a number of cities in this country are



Below: No. 8710. For ice or mechanical refrigeration. White porcelain inside and outside. Monel metal trimmed. A money-making, money-saving, sales-promoting electric illumination display refrigerator.

Above: No. 1010. All-Porcelain Refrigerator. For mechanical refrigeration only. Porcelain enameled steel interior and exterior. Monel metal trimmed—including base. Electric illumination.

When FACTS get the Business!

You're Glad You're a "DRY-KOLD" Distributor

WHEN the final session comes—your prospect wants only plain, proved facts! With "DRY-KOLD", you have more exclusive selling points to close your deal than with any other line.

In engineering principle, design and construction, "DRY-KOLD" Refrigerators are made to be the best. They are the heaviest and sturdiest refrigerators made. They are completely insulated with the best non-conductives made.

Every detail of design concentrates on the vital factor in correct refrigeration—circulating, dry, cold air. Same even temperature at the top, bottom and most remote corners. The humidity is correct and unvarying—which makes dehydration practically impossible.

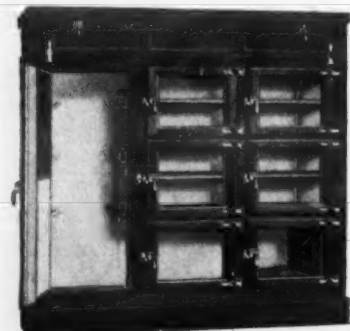
These statements are all easily proved in tests and demonstrations. "DRY-KOLD" distributors know it! It's the confidence they have in the product they sell that makes them so successful. And they are not limited—they have a complete line for every commercial use and purpose. No distributor has ever changed from "DRY-KOLD" to any other line.

There is room in our selling organization for a few more aggressive, intelligent distributors. Write us immediately for our 1930 catalog and complete selling and merchandising plan.

THE "DRY-KOLD" REFRIGERATOR COMPANY MANUFACTURERS
Main Office and Plant, Niles, Michigan

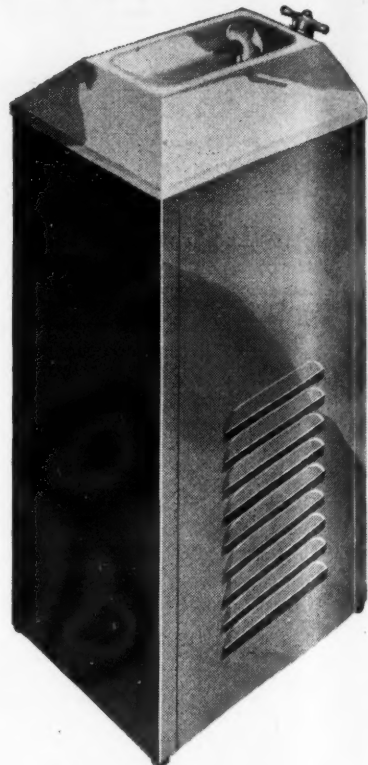
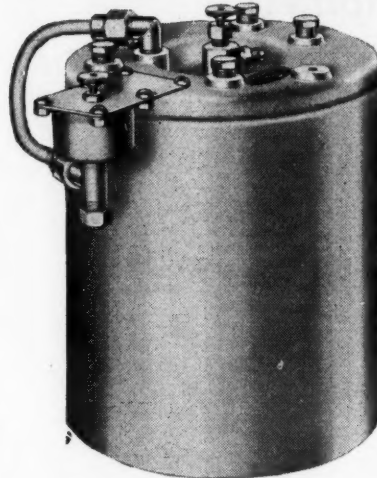


No. 10 Grocer's Refrigerator. Oak. For mechanical refrigeration only. Walls thick and heavy. Width, 60½"; depth, 33"; height, 86".

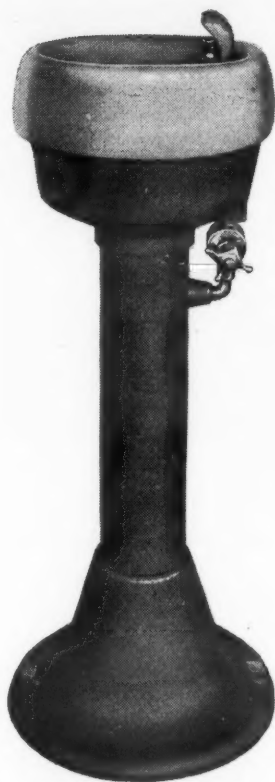


No. 35 Grocer's Refrigerator. Oak. For mechanical refrigeration only. Walls thick and heavy. Width, 67½"; depth, 33"; height, 86". Two sets of meat rails.

Variety of Models in Liquid Cooler Line



New equipment for cooling water and beverages made by Liquid Cooler Corp.



DEMONSTRATES COOLER AT MILK STATION

Binghamton, N. Y.—The Binghamton Light, Heat & Power Co., Kelvinator distributors, hit upon a novel way to make sales to farmers. They took a truck to a milk station where the farmers were bringing in their milk, and made an actual demonstration of milk cooling on the spot. The truck carries a reel of electric wire which they hooked into the connection at the milk station.

On the first day this truck went into service a demonstration was made to thirty farmers. Many good prospects were secured and several actual sales were made.

THE Liquid Cooler Corporation of Detroit announces its entire line of Temprite liquid coolers as now being in production, with orders being filled. The line consists of thirteen distinct models for water and beverage cooling.

The Temprite water cooler line is made up of seven models. The first two sizes, models 22-W and 35-W, are for single jet application. Model 22-W is for use only in Temprite drinking fixtures of wall and pedestal type. This unit has a capacity of twenty gallons an hour water cooled from 80 to 50 degrees.

Model 35-W, for remote installation or for installation in drinking fixtures or ice type coolers already installed, has a capacity of thirty gallons an hour.

The next size, model 40-W, has a capacity of forty gallons an hour, cooling the water from 80 to 45 degrees. It may also be duplexed with other refrigeration equipment already in use, or used in light duty dead end systems.

Model 65-W is for use in medium duty dead end systems and on double jet restaurant or industrial cabinet coolers. It has a capacity of seventy gallons.

The remaining unit, model 90-W, is for heavy duty service in dead end systems and in restaurant and industrial cabinet coolers. It has a capacity of 100 gallons an hour.

Two models, the 90-CR and 200-CR, are for circulating systems. The model 90-CR is for medium duty service in systems using a pump of two to three gallons a minute. The large model, 200-CR, is for use in systems using a pump of from four to five gallons a minute capacity, and delivers heavy duty service. All Temprite water coolers are available in a full line of cabinets for restaurant, industrial and commercial use.

There are six models in the line of beverage coolers. Practically any beverage can be handled with some one of these models. The standard Temprite beverage cooler is equipped with special brass coil, heavily tinned inside and out.

The models range in capacity from fifteen gallons an hour in the smallest unit, No. 35-B, to sixty gallons an hour in the largest unit, model 90-B1. The model 35-B is for use with an intermittent type of dispenser having a rate of draft not exceeding fifteen gallons an hour. The 40-B is for similar use. The rate of draft can be as much as twenty-five gallons an hour, which is the capacity of the unit.

Temprite beverage coolers in the larger sizes are capable of cooling from one to three beverages at the same time. Models 65-B1 and 65-B2 are similar in size and have a total capacity of forty gallons an hour. The 65-B2, however, will cool two beverages, its total capacity being equally divided between the two liquids.

Models 90-B1, 90-B2 and 90-B3 cool one, two or three different beverages. The total capacity of the unit is sixty gallons an hour, cooled to 40 degrees. The model 90-B2 cools twenty gallons of one beverage and forty gallons of the second. Model 90-B3 cools twenty gallons of each of the three beverages.

Esco

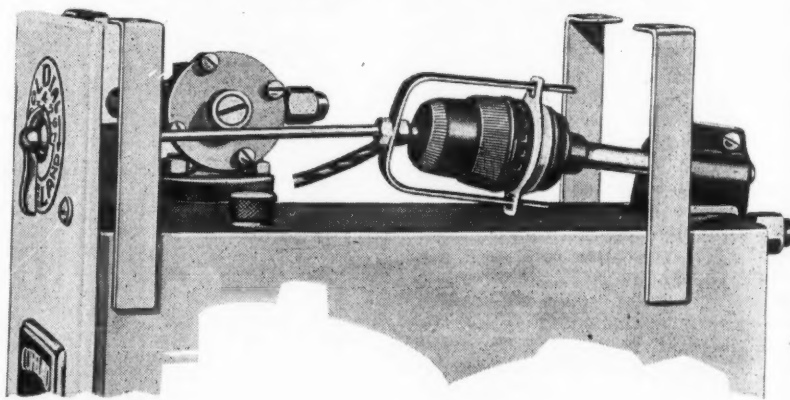
ESCO CABINET CO., West Chester, Pa., has made a number of changes and additions to its line of milk-cooling and ice-making equipment. Models "B" and "BI" cabinets have been designed to cool and store bottled milk. Each model is manufactured in three sizes, with capacity to cool from 75 to 500 quarts of milk, and with storage capacity for from 75 to 250 quarts.

The model "B" cabinets are designed for cooling and storing milk only, while the "BI" models are equipped with ice-making compartments, with capacity of from 50 to 150 pounds per day. These cabinets are insulated with three inches of corkboard, sealed in waterproof envelope. They are ruggedly constructed and attractively finished in battleship gray enamel.

Esco model "I" ice makers are offered in three sizes, with capacities of 75, 150 and 300 pounds, respectively. Each model is insulated with corkboard, four inches in side walls and ends, five inches in bottom.

They are equipped with the Esco coil, designed to operate with any refrigeration unit. The cabinets are finished in battleship gray color.

Coldial Makes Freezing Faster in New Copelands



All models in the new Copeland line are equipped with the "Coldial," which has seven freezing speeds. This control has an automatic shut-off, which prevents the temperature in the food compartment from dropping below 32 degrees.

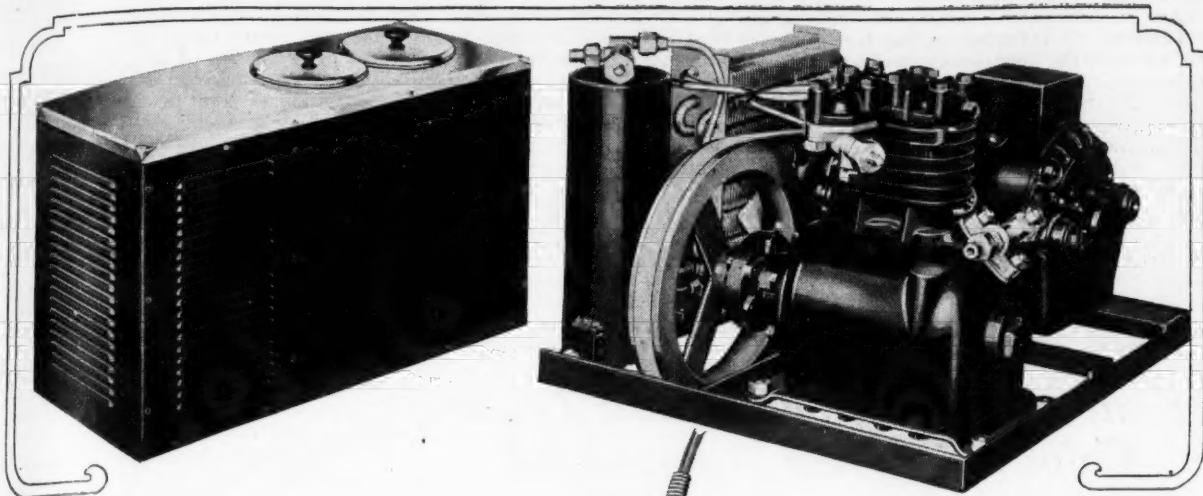
Large Capacities Characterize Esco Milk Coolers



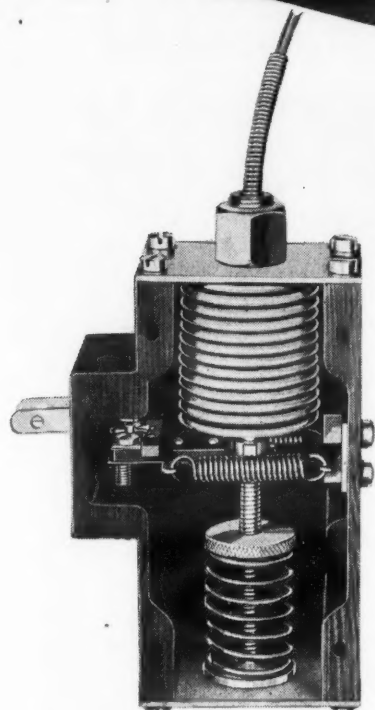
Model "E" electric milk coolers are manufactured in eight sizes, accommodating from two to fourteen cans of milk. They are designed exclusively for cooling cans of milk on dairy farms, and each model is equipped with the special Esco cooling coil, which entirely encir-

cles the inside of the cabinet. This coil has been designed for the milk cooling job and to operate in perfect balance with any make of refrigeration unit. This coil is supported and protected by a spruce rack. A bottom rack protects the base.

Kelvinator Offers New Line of Ice Cream Cabinets



(Above) Kelvinator two-hole portable cabinet for use in shops handling small quantities of ice cream. Three and four-hole portable models are also offered which accommodate all types of U. S. 20 quart cans. The cabinets use the direct, dry expansion system. Insulation is completely sealed, panels are rust-proof steel, black lacquered, satin finish. Top is chromaloid, a highly polished chromium-plated metal. Bead rings, made of heavy stainless steel, are removable.



A new type of thermostatic temperature control used on all Kelvinator portable ice cream cabinets. A single adjusting nut can be set to automatically maintain desired temperatures.

(Above) Model L M 20, No. 5129 condensing unit which is used with the portable cabinets. The compressor is a 2-cylinder, vertical reciprocating type, equipped with a $\frac{1}{4}$ h. p. motor. The motor frame is supported by rubber insulated trunnions to eliminate transmission of vibration and sound. Motors used with alternating current are single phase repulsion induction type while the ones used with direct current are compound type.

York Air Cooler

ONE of the greatest difficulties encountered in meat plant coolers is insufficient or entire lack of air circulation.

Without air circulation in the cooler, moisture collects on the walls, ceiling and product, and excessive dampness results. Even temperatures throughout the box cannot be maintained and usually result in carrying lower temperatures than are actually required for meat preservation.

Where there is no air circulation the meat ripens more slowly and usually loses its bloom. The problem of air circulation has been attacked often but has not always resulted to advantage. Usually some other bad condition has resulted which has offset any advantage that has been gained. Part of the solution lies in the design of the cooler, and the remainder in the proper application of air cooling and circulation.

The most recent step forward in this direction is a method which combines cooling and air circulation in a new way.

This new York cooling unit is attracting widespread attention among the packers.

Essentially it consists of a welded steel coil within a sheet metal housing. At the top of the coil are centrifugal fans which circulate the air. The air is drawn into the unit at the bottom of the housing, passes over the coil, and is discharged through directional outlets at the top. The coil may be cooled either by brine or by expanding ammonia into it. The unit is self-contained and is shipped assembled so that it is only necessary for the purchaser to make refrigerant connections at the coil headers and to connect power to the fan motor.

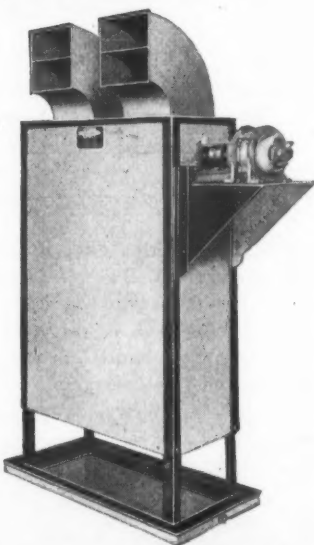
In most cases the unit is placed in the room to be cooled. It is so designed that it requires very little space along a portion of an end wall. It can be placed outside the cooler by providing intake and outlet connections through the wall.

By virtue of the large amount of air handled by this unit the velocity over the coil is very great, with net result that each square foot of cooling surface is the equivalent in cooling effect of several square feet of ceiling or wall coil. The high velocity causes a "wiping" effect over the coils which helps to keep them in good condition as far as frost is concerned. Under certain conditions there is a continuous defrosting evidenced by dripping from the coil.

To take care of this a drip-pan with an overflow outlet for connection with the sewer is a part of the unit.

When it becomes necessary to defrost the coils it can be done easily in a room where the temperature is above 32° by shutting off the refrigerant and permitting the fans to run. For rooms either above or below 32° any method of defrosting, such as "hot gas," can be used.

The centrifugal fans have sufficient capacity to force the air to all portions of the room. This maintains an even temperature and gives an air circulation which keeps ceiling and walls dry, but maintains a high humidity to prevent shrinkage of product. With a positive air circulation, higher temperature can be maintained, which is reflected in a saving on refrigeration and a better product, because in the case of beef or mutton ageing or ripening is hastened without excessive shrinkage. This in turn means less trimming, with its consequent loss of product.



Cooling unit for providing proper circulation of air in meat coolers. Centrifugal fans force the air to all portions of the cooler.

Further, the meat holds up well, retains its bloom and presents a better appearance when loaded out for shipment, because less condensation collects on it.

When the day's work is done the refrigeration can be shut off, the room and equipment cleaned, and the doors and windows opened to permit the room and equipment to dry. The same drying could be accomplished by operating the unit without refrigeration. During the night there is no drip or dampness, and in the morning the room temperature can quickly be brought to the desired point by operating the unit.

Cabinet for Cooling and Storing Bottled Milk



Model BI150 made by Esco has facilities for making ice in addition to cooling bottled milk.

Dairy Refrigeration

FOUR new milk coolers have been recently announced by the Dairy Refrigeration Company of Milwaukee, Wis. Wet and dry type of installations are used in these coolers. The Glenn dairy cooler, Model B, is of the wet type, and cools 18 cans of milk daily. This cooler can be had with either one or two agitators for stirring up the water and speeding the distribution of cold from the freezing coils.

For the smaller type of dairy installation, the Model C, wet type, is offered. It has a capacity of 6 cans daily and uses the agitator system. Model C, of the dry installation type, utilizes the aerator method of cooling milk. Well water passes through the upper section of the aerator and cools the milk to 70 degrees and the brine flowing in the lower section of the aerator lowers the temperature of the milk to about 40 degrees. The storage compartment in the cooler is refrigerated by a brine tank which is located at the top of the box.

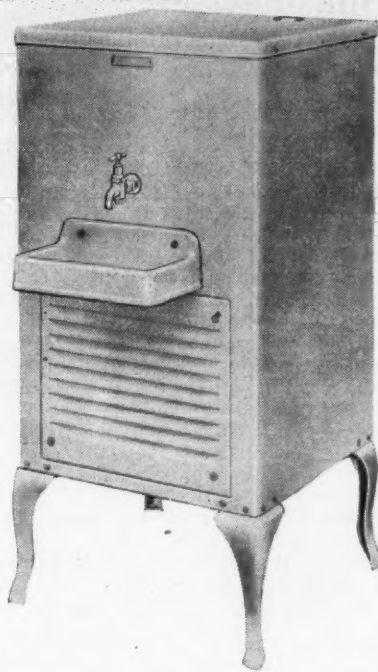
The Glenn Model M-B is designed for the farmer who is producing and distributing bottled milk. It combines the aerator method of cooling with walk-in storage space for bottled milk in cases. A brine tank resting at the rear end of the storage room furnishes cooling for both the aerator and the cold room.

Condensing units in the Glenn line are of the reciprocating type and are belt-driven. They are equipped with motors from $\frac{1}{2}$ to 2 hp. and have from 400 to 2,200 lbs. ice melting capacities per 24 hours of operation.

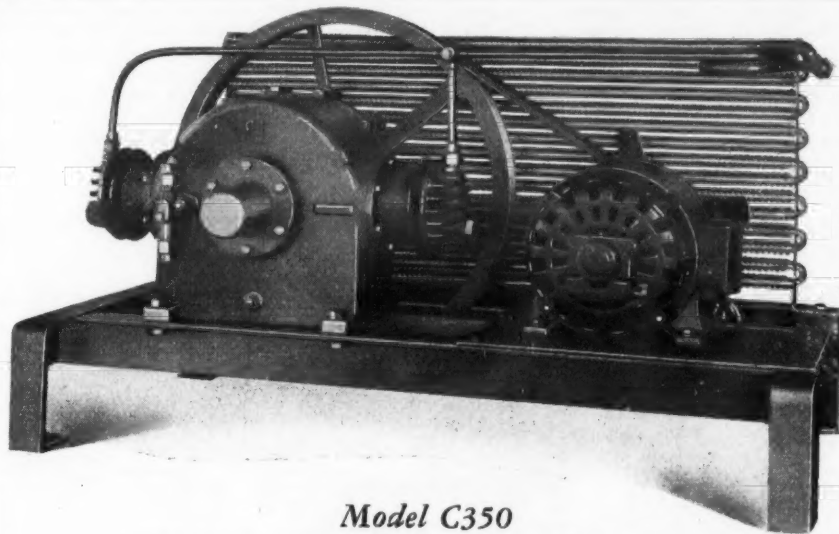
The engineering department of the company co-operates with dealers and distributors by sending representatives who supervise initial installations. This department has issued a manual which describes each type of installation most suitable for the particular milk cooling job.

Glenn condensing units are suitable for other installations outside of the milk cooling field. Five pieces of equipment are offered for cooling meat storage rooms on fox farms.

Servel



One of the pressure type water coolers manufactured by Servel. These coolers can be had with either faucet, bubbler or combination of both. Several other changes have been made in the mechanical equipment of these coolers. For description of these changes see page 24.



Model C350

1780 Lbs. Ice Melting Capacity - 2 Cylinder Reciprocating - 3 Inch Bore - 3 Inch Stroke - Poppet Valves, Monel Metal - Double "V" Belt - Fin Type Condenser Steel Base - No Crankshaft - No Connecting Rods Built for Refrigeration (not a Scott's Yoke)

ICELECT REFRIGERATION HEAVY DUTY SLOW SPEED

Sizes are now available, all heavy duty, 1-6 h.p., 1-4 h.p., 1-3 h.p., 1-2 h.p., 1 h.p., 1 1-2 h.p. The range of sizes plus simplicity, heavy duty, slow speed and high quality will make you money.

We can offer some good territory, we can make you a profitable proposition. Just ask for the booklet, "The Heart of Refrigeration." It contains a full description of ICELECT heavy duty slow speed units.

ICELECT CORPORATION
OMAHA, NEBRASKA

THE last five years have been a period of tremendous growth in the electric refrigerator business in Louisville. More makes than before are sold; there are more firms selling them; and the business is constantly increasing. No good apartment is built without electric refrigeration, and in large numbers of private homes the old-time refrigerator is disappearing. As the old ones go out electric units come in.

The H. C. Tafel Company, 236 West Jefferson Street, also sell General Electric refrigerators. In addition, they are distributed by the Tennessee Light and Power Company, in the central and western part of the state, and the Ken-

The Kelvinator, one of the oldest electric refrigerators on this market, has been taken over by the Stratton and

The Kelvinator is well advertised

The Absopure refrigerator is sold in Louisville by the Vogt Refrigerator Company, 616 Barret Avenue, which

The officers of the A. H. Thompson
o. are: A. H. Thompson, president;
M. Davison, vice-president; M. E.
Thompson, secretary, and J. B. Willis,
reasurer.

Posed by Mary Evelyn Kane

John W. Moore, Photographer

Milk and meat, fruits and vegetables must be kept at a temperature below 50 degrees *at all times* if you are to check the growth of bacteria. The General Electric Refrigerator maintains a constant, dry cold, several safe

The cabinets stand well above the floor on sturdy legs, with ample broom room underneath. The top coils radiate a rising current of air which prevents dust from settling. Come in and see the wide range of models. We will arrange for convenient deferred payments if you wish.

"Makes it Safe to be Hungry"

DISPLAY ROOM
CITY 4118

OPEN EVENINGS

OFFICE
CITY 1685

BROWN HOTEL 327 WEST BROADWAY BROWN HOTEL

Little Mary Fenley Kaye shared the spotlight with the big refrigerator in an advertisement which had a tremendous local appeal. Both the little lady and the photographer received due credit.

The Trupar refrigerator is distributed by the Laib Company, 1401 Dixie Highway, under the management of G. A. Schmitt. The Trupar refrigerators are shown at the company's two display rooms, one at 307 West Broadway and the other at 1534 Bardstown Road. They are also on display at the office of C. J. Kratz, 1451 First Street, plumber, and at the Metropolitan Tea Company, at Fifth and Liberty Streets.

The Copeland refrigerator has its headquarters in Lexington, with a very live branch in Louisville. Distribution is controlled by M. H. Moise. Mr. Moise claims the distinction of being the first man to sell an electric refrigerator south of the Mason and Dixon line, and also of being the oldest distributor in point of service in the United States. His main office is at 234 West Main Street, Lexington, Kentucky, and his territory includes Kentucky and southern Indiana.

The officers of the A. H. Thompson Co. are: A. H. Thompson, president; F. M. Davison, vice-president; M. E. Thompson, secretary, and J. B. Willis, treasurer.



20 N. Green Street Dept. X Chicago

Name
Address
City State

QUICK FREEZING DEPENDS ON ADEQUATE EQUIPMENT

(Concluded from Page 12, Column 3)

more important than rapidity of freezing beyond a certain point."

Problems in connection with the transportation, distribution and merchandising of frozen food took precedence over problems of production in the remarks of most of the speakers. Practically every speaker emphasized the need of equipment that offered adequate facilities for storage and display in retail shops.

Mr. Green stressed the point that more testing in the field, as contrasted with testing in the laboratory, was a vital need as a means of determining the most efficient equipment for merchandising quickly frozen products to the public.

Mr. Kolbe took the view that advances in supplying retail stores with proper equipment would follow rather than lead the introduction of quickly frozen product. Dr. Taylor stated that the supplying of retail shops with suitable equipment—in the pioneering stage, at least—required the co-operation of manufacturers of frozen food products with both refrigerator manufacturers and store owners.

Consumer acceptance of frozen foods will not constitute a problem, in the view of two of the speakers.

"The history of refrigeration clearly shows that public prejudice against frozen fish dies when confronted with obvious merit," Dr. Taylor stated, adding that "if freezing is the best way to deliver perishable goods, prejudice need be considered only as a temporary resistance to sales and must soon pass away."

Mr. Kolbe asserted that if the product was "right," the consumer could not refuse for long to give up any prejudice he might have against frozen foods. With various food industries "looking toward the freezing of some of their products, it seems that the combined publicity will soon have the country frozen-food-minded," he stated.

Mr. Kolbe also pointed out "probably over 15,000,000 pounds of quick-frozen packaged fish were produced in the past season." "Fish are decidedly more subject to rapid spoiling than meat," he stated, "yet this large production has been marketed without the aid of any special equipment not already available for packaged meat distribution."

Contrary to the views of some other investigators, Dr. Taylor asserted that rapid freezing does not prevent the loss of juice from frozen products when defrosted, and stated that a process had been developed by the Atlantic Coast Fisheries which minimized such losses.

He presented data to show that the loss of juice from frozen fillets of fish was practically negligible when the corrective process had been applied prior to freezing, but that the loss was relatively large in the case of cuts which had not been treated. In the case of untreated product, the loss of juice becomes greater progressively on defrosting as the period of storage increases, practically regardless of the rapidity of freezing, according to Dr. Taylor.

"Freezing," he added, "need not be extreme in rapidity. Consideration should preferably be given to attaining reasonable rapidity, with due regard to efficiency, economy and practicability."

"Freezing is most economically done

at only moderately low temperatures. As the temperature is lowered to extremes, the cost of refrigeration rapidly and disproportionately increases."

Mr. Keyes outlined briefly the experience of the Booth Fisheries Company in using ordinary refrigerator cars for the distribution of its products "with uniformly good results."

Mr. Millott said the requirements of retail store equipment were adequate display; storage at 15° to 20° F.; a coil that can be defrosted easily and quickly without defrosting the products in the case; the maintenance of adequate temperatures at all times, and freedom from the necessity for service.

Mr. Green, in discussing the probable storage requirements of frozen foods, suggested that an entirely new technique may be necessary.

"If the dealer is equipped to display and store 800 pounds of product at one time, he would be able to sell at least 2,000 pounds per week with the maximum of convenience," he stated, and continued:

"Provision for the storage of six times the amount of the display should be ample. Size, weight and shape of packages vary so that it is necessary to arrange to avoid confusion and have ready access to the entire volume of storage. These requirements lend themselves nicely to the possibility of utilizing the space worthless for display in the base of the display fixture. Combining both functions in one fixture, using one mechanical unit to cool it with one set of coils, temperature controls, etc., makes for economy, as it is less expensive to maintain these sharp freezer temperatures in one fixture than in two, providing that this one unit furnishes the necessary volume of storage as before indicated. Small separate storage cabinets can, however, be operated at moderate cost and may be necessary in some arrangements of equipment."

Close attention to the remarks of the speakers and frequent questions and discussions characterized the meeting.

QUICK FREEZING ISSUE MARCH 26

THE quick freezing of foods will be the main theme of the March 26 issue of ELECTRIC REFRIGERATION NEWS. The progress of this development in the preparation and distribution of food products is of vital interest to the refrigeration industry. That fact is attested by two quotations from the report of the Meat Packers' meeting in Chicago, on Pages 12 and 33 of this issue. They read:

"The enterprise of producing and merchandising quick frozen foods is a long chain of events, and in this chain, one bad step may spoil or injure the quality of the goods which have been handled perfectly at every other step."

"Practically every speaker emphasized the need of equipment that offered adequate facilities for storage and display in retail shops."

There seems to be no doubt of the fact that the advent of quick freezing has opened up a new avenue of service to the refrigeration industry. The quick frozen foods issue of the News will be published on March 26.

Servel Service Men From All Over Country Meet at Factory for Conference



CAPITOL MODEL PROVES ITS POPULARITY

Bloomington, Ill.—Full production of the new Capitol Ice-O-Matic refrigerating unit is now under way, according to announcement today by Walter W. Williams, vice-president of the Williams Oil-O-Matic Heating Corporation. The model will retail for \$175 and up, at the factory, in box capacities up to six cubic feet.

"Dealers' orders on hand will require our plant capacity for the next three months," said Vice-President Williams. "The Capitol has created more advance interest among dealers than any other device we ever have produced."

WAYNE'S EASTERN DEALERS ATTEND CONVENTION

New York, N. Y.—Wayne electric refrigerator and oil burner distributors and dealers in the Eastern Division, attended a convention held at the New York offices of the Wayne Home Equipment Co., 1780 Broadway, during the week commencing February 3.

Sixty-five distributors and dealers, with their service managers, were at the convention, which was attended by J. A. Berghoff, general manager; and Frank E. Mills, sales manager of the Wayne Home Equipment Company.

A pre-convention showing of the entire line of new refrigerator cabinets, and Wayne "D" type oil burners was on display. The new Wayne selling plan—"Organized for Profit"—was also given to the attending dealers, and was enthusiastically received.

A. W. Clark, the Wayne eastern division manager, reports a fine volume of spring orders as the immediate result of the convention.

SERVEL district service representatives from all parts of the country just concluded a two weeks' conference at the factory at Evansville, studying new Servel equipment.

These men are responsible for the proper education of distributors and dealers service organizations, and the meeting just held was for the purpose of bringing their information up to date and equipping them to take proper care of field work in 1930.

The picture shows the group in front of the Servel main office. Left to right: Back row—R. Miles, E. Storm, A. Schmitz, E. Culver, W. Aulsebrook, R.

Etherton, E. Shook, O. McKinney, F. Shea, R. Ryan, R. Eskew, C. Johnston. Front row—R. Harman, J. Pate, S. Cooper, V. Vining, H. Foulds, T. Parr, C. Olin.

GOOD EXAMPLE

"ELECTRIC REFRIGERATION NEWS has been of such great help to us in our business that we have decided to make a present of a year's subscription to the salesmen of our Copeland distributor in Boston, the Northeastern Radio."—W. H. Lyon, Ayers-Lyon Corporation, Boston, Mass.

PATENT



APPLIED FOR

LARKIN COILS
FOR ELECTRICAL REFRIGERATION

New Dry Expansion Type STANDARD EQUIPMENT By These Leading Manufacturers

Copeland
DEPENDABLE REFRIGERATION
DETROIT, MICH.

Obsopure
DETROIT, MICH.

WILLIAMS ICE-O-MATIC
REFRIGERATION
BLOOMINGTON, ILLINOIS

KULAIR
PHILADELPHIA, PA.

JACK FROST
REFRIGERATION, LTD.
TORONTO-CANADA

Royal
THE J. DEER CO.
HORNELL, NEW YORK

UNIVERSAL
DETROIT, MICH.

TRUPAR
DAYTON - OHIO

AFTER the most exacting tests the new Larkin Dry Expansion Coil has been adopted as standard equipment by the nation's leading manufacturers of Electric Commercial Refrigerating Systems.



Type—A-D
For All Display Cases
Made in 10 Sizes

The Larkin dry expansion coil completely solves the problems of defrosting and dehydration.

12 Types—63 Sizes

There is a type and size of Larkin Coil for every type of commercial refrigeration.

The exclusive (patent pending) Larkin principle of 100% vertical coil surface means that the proper Larkin Coil provides a coil surface equal to the wall surface of the unit to be refrigerated.

For complete information on the application of Larkin coils, write any of the manufacturers listed.

Larkin-Warren Refrigerating Corporation
Originators and Manufacturers
ATLANTA - GEORGIA

Maine Distributors Hold Kelvinator Service School

THE Central Maine Power Co., Kelvinator distributors at Augusta, Me., recently held a service training school of one week's duration at the company's main office building, 9 Green Street, Augusta. The school was attended by nineteen employees of the company who were under the instruction of James K. Stewart, field service representative.

Left to right the men are: Front row: James K. Stewart, instructor; Lawrence E. Stimson, Waterville; Carroll F. Merrill, Rockland; Lloyd Holden, Skowhegan; Dexter L. Gallagher, Lewiston; Richard F. Parker, Lewiston. Second row: Edward McAdams, Augusta; Norman L. Danforth, Waterville; Robert C. Berry, Waterville;

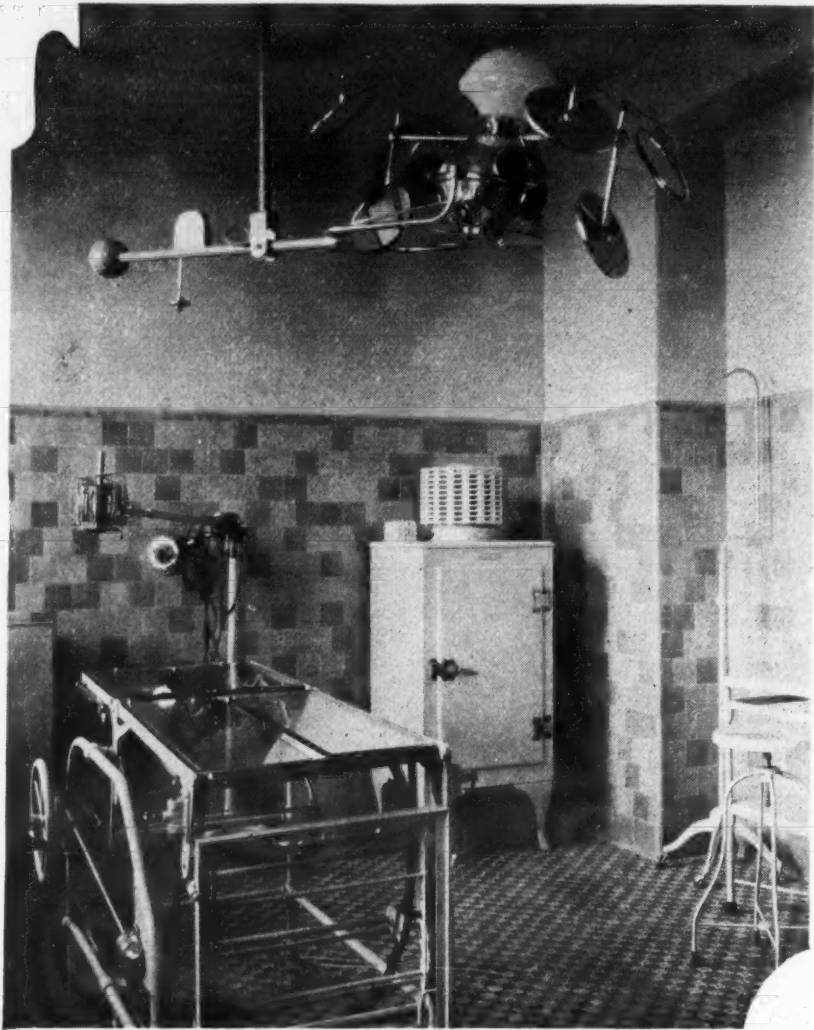
Norman Brewer, Boothbay Harbor; Nelson L. Manter, Augusta; Warren A. Parris, Bath; Frank P. Lincoln, Brunswick; J. O. Gamble, Belfast.

Back row: Henry N. Hudson, Augusta; Harry Gordon, Pittsfield; Norman B. Moody, Augusta; Clifford W. Taber, Augusta; Bernard H. Lothrop, Norway; Edward H. Newcomb, Bridgton.



SCIENCE GUARDS THE HEALTH

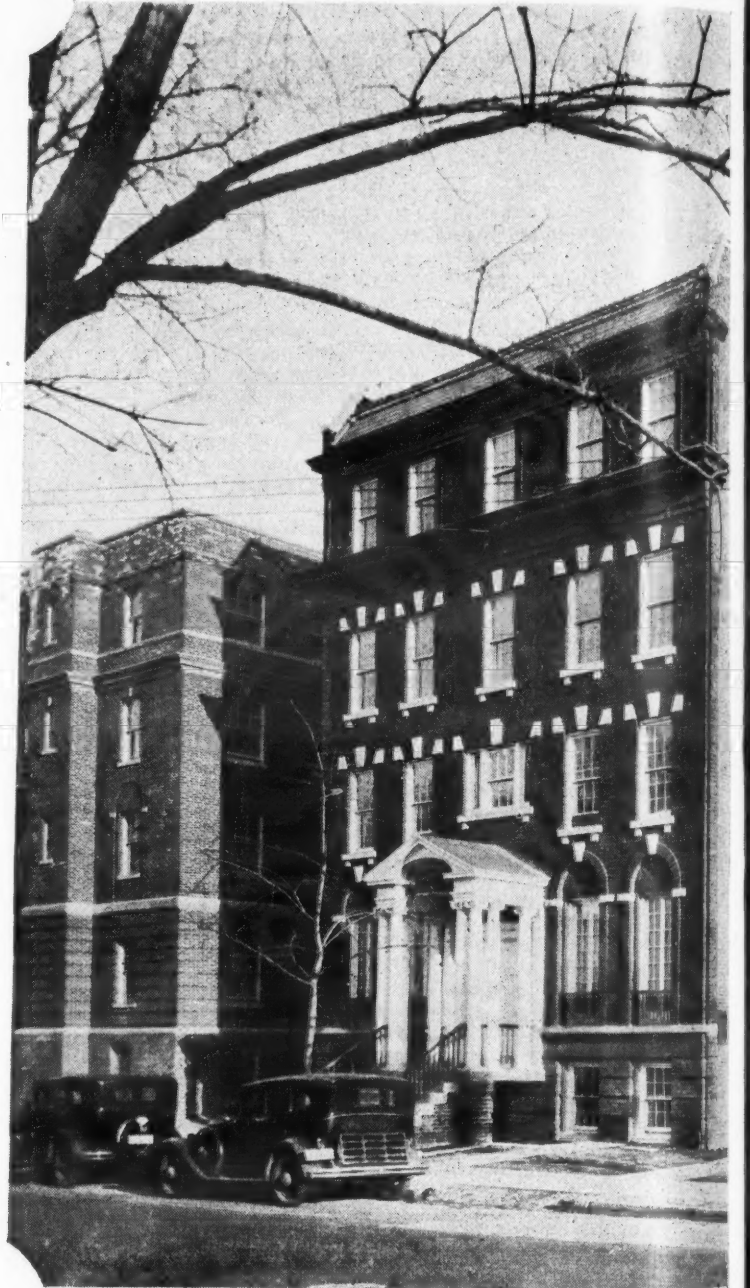
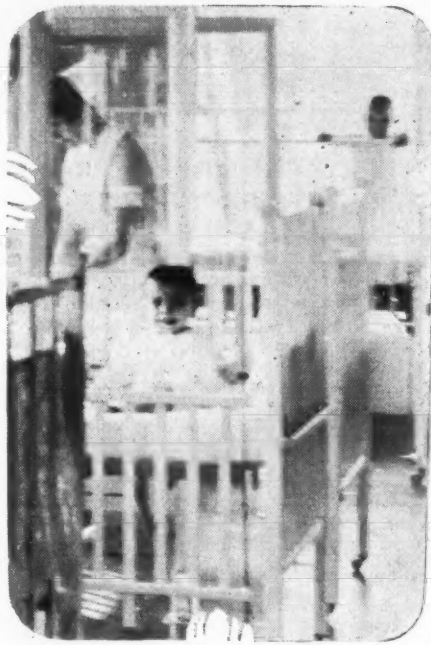
Babies' Hospital Equipped



A REFRIGERATOR of 3½ cubic feet capacity stands in the corner of each operating room, doing its share to save babies' lives.

Newark, N. J.—Unmistakable because of their distinctive appearance, General Electric refrigerators greet the eye almost at every turn in the newly-opened Newark Babies' Hospital. In the operating rooms, in the diet kitchens, in the laboratory, and in several other rooms, G. E. refrigerators are helping in the important job of safeguarding the health of the little ones who have been entrusted to the Hospital's care. To make the G. E. atmosphere complete, several G. E. water coolers have been placed in

the corridors. There is one on each floor. Philip H. Harrison, of this city, installed the refrigerating equipment throughout the new buildings. The photographs which accompany this article show some of the G. E. units. The biggest of the lot are in the milk preparation room, where refrigerators with a food capacity of 60 cu. ft. have been installed. The units in the operating rooms are of 3½ cu. ft. food capacity, and each of the three diet kitchens, one on each floor, has a 10



This impressive group of modern buildings

FLINTLOCK CONDENSERS

Full Capacity



With
Every
Unit

FIN AND TUBE SAME
SOLID PIECE OF
MATERIAL

**FLINTLOCK
CORPORATION**

4461 W. Jefferson Ave.
DETROIT, MICH.

From
Florence P. Burns, R.N.

Superintendent of the Babies' Hospital

"The General Electric Refrigerators that we have installed throughout our new hospital and nurses' home are giving excellent service. We were perhaps more exacting and cautious in the matter of deciding on refrigeration than most other institutions. In a babies' hospital perfect refrigeration is an absolute essential. The hermetically sealed design of G. E. is a safety factor that impressed us."

THE diet kitchens all are equipped with refrigerators of 10 cubic feet capacity.

Electric
Refrigerator

Truck Specialists

During the past five years we have handled over 28,000 electric refrigerators in the New York Metropolitan area.

**We Are Expert Handlers
—All Sizes—All Makes**

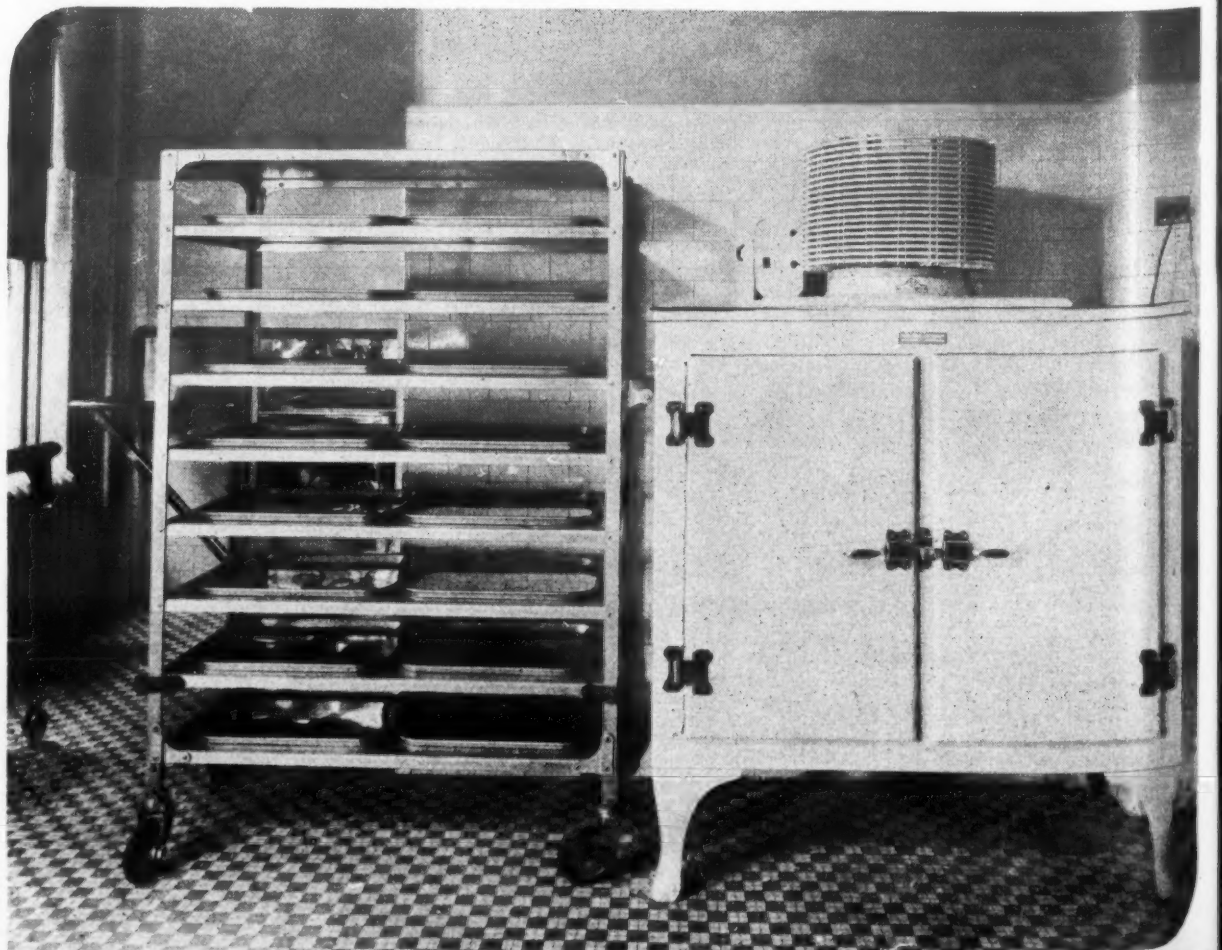
For electric refrigerator manufacturers—distributors, and dealers doing business in Westchester County and Greater New York City—we offer a service that includes unloading from freight cars to warehouses and delivery to individual homes and apartment houses in the most modern padded vans.

SUNSET

EXPRESS & TRUCKING CO., INC.

Main Offices
400 E. 75th St.
New York City

Warehouse
302 E. 61st St.
New York City



OF NEWARK'S LITTLE ONES

With G. E. Refrigerators

cu. ft. refrigerator. All have important jobs.

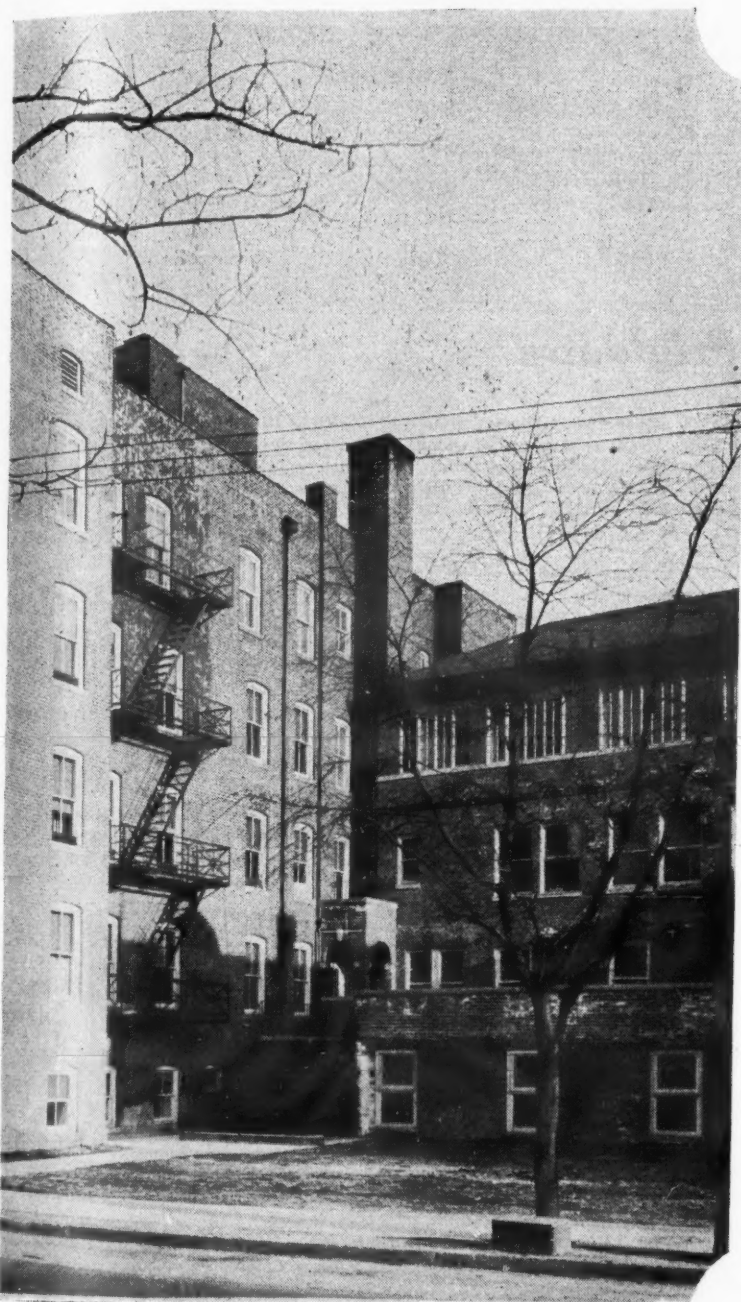
Special equipment consists of a two-body mortuary box, and a refrigerator especially made for holding garbage.

In all, sixteen G. E. refrigerating units, ranging from the big 60 foot boxes to the little water coolers, have been installed in the Hospital. They will take care of the structure's refrigerating requirements under all conditions.

The Babies' Hospital, which is known as the Coit Memorial in recognition of

the work of the late Dr. Henry L. Coit, founder and first medical director of the institution, was dedicated with impressive ceremonies, attended by about 200 persons, including many of Newark's civic leaders, who have been identified with the Hospital's development. Following the dedication, which took place in the Murray Solarium, named for the Hospital's second medical director, about 3,000 guests inspected the new buildings, which embody the latest ideas in hospital design.

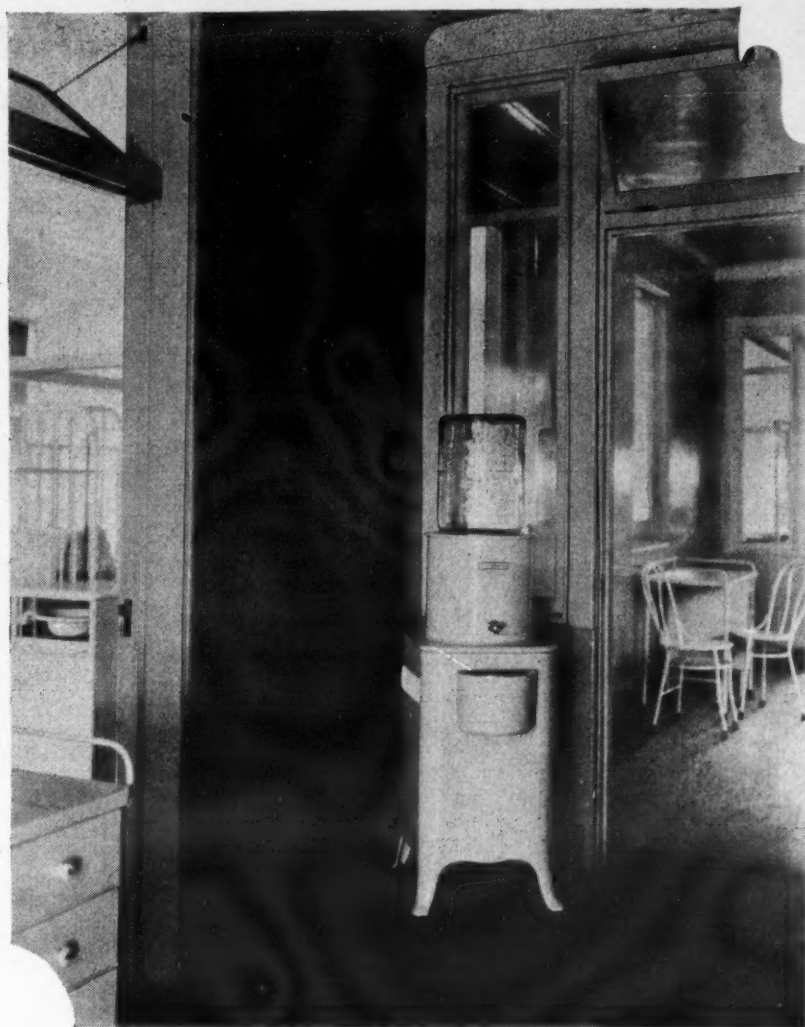
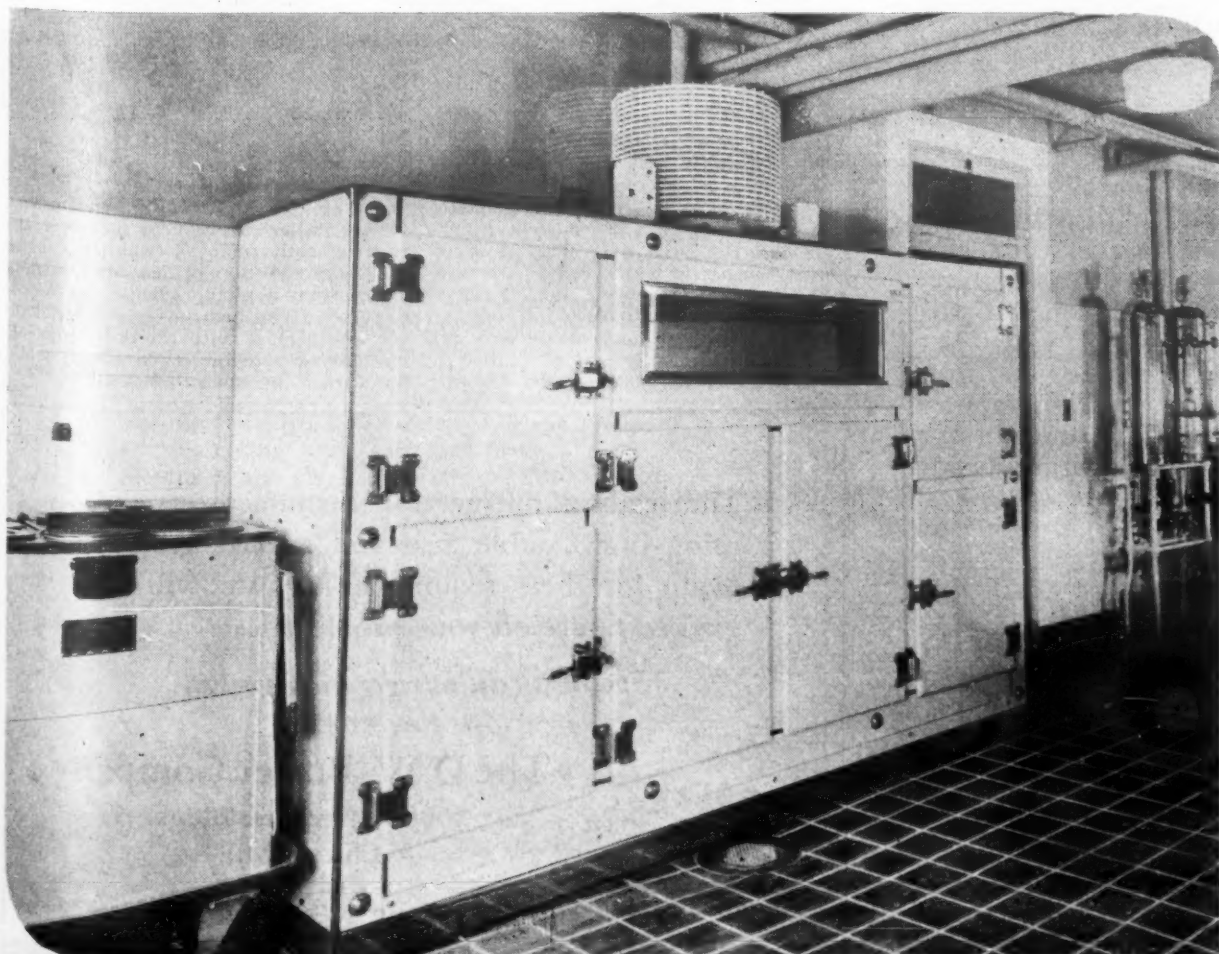
COOLERS in the corridors on every floor keep the drinking water within the temperature range that is best for health.



houses the Coit Memorial Babies' Hospital



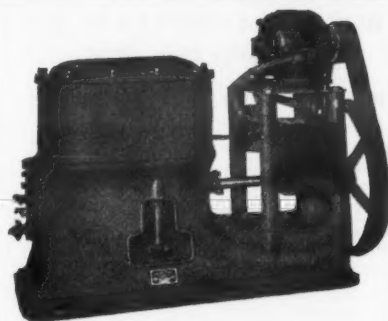
BIG units of the 60 cu. ft. type are conspicuous features of the milk preparation rooms.



From
John H. and Wilson C. Ely
Architects of the Babies' Hospital

"We have found the General Electric refrigerators installed by you in the Newark Babies' Hospital, not only a very satisfactory, but also a remarkable solution for the problem we had to face.

"Scattered units, which would have been hard and wasteful to have served from a central plant, were well taken care of by your wonderful local plants, which serve all sorts of varied requirements."



Electric Refrigeration Distributors and Dealers

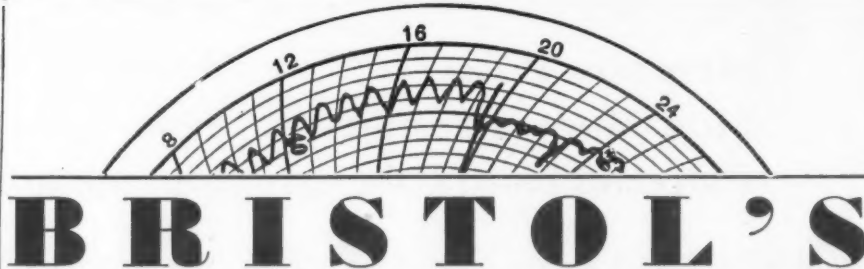
You need the PEERLESS line of compressors.

PEERLESS units give you a COMPLETE line, ranging from one to ten tons.

PEERLESS Perfected Multiple Apartment System is recognized leader in its field. Full details given on request. Our record warrants your most exacting investigation.

PEERLESS ICE MACHINE CO.

515 W. 35th St.
CHICAGO, ILLINOIS



Small Size "Handy Recording Thermometer"

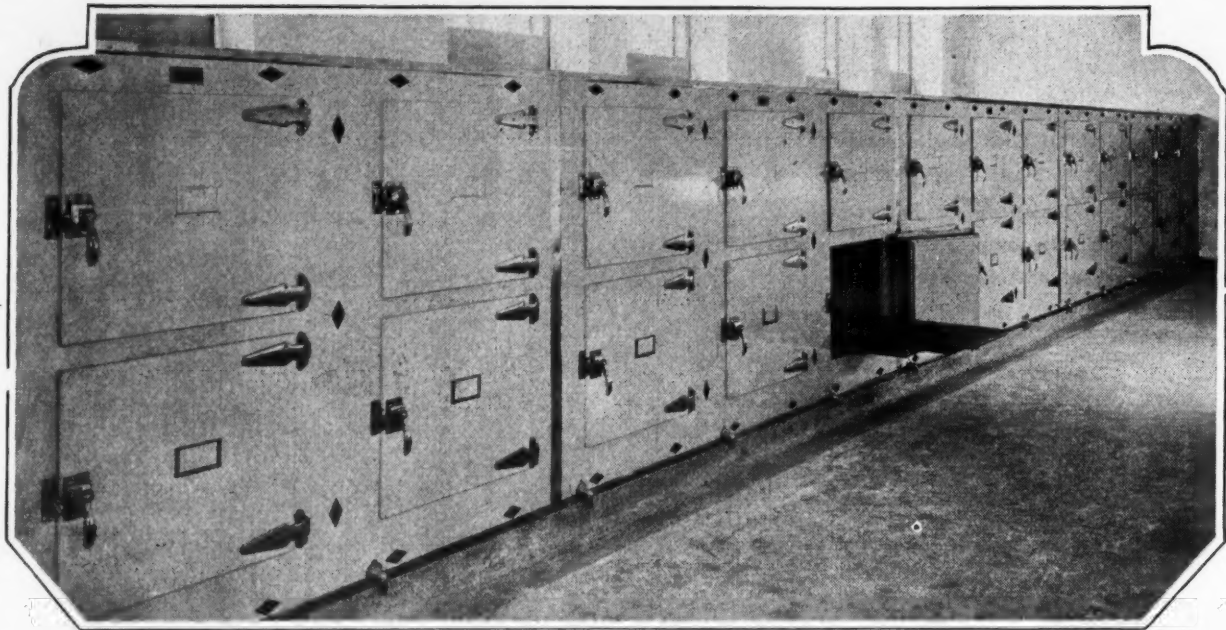
AN ideal medium for obtaining atmospheric temperature records of cold storage rooms, refrigerators, hardening rooms, etc. Instrument as illustrated is entirely self-contained. The all-metal case of aluminum alloy is light in weight, yet rugged. Furnished either with black or white enamel finish. Has convenient handle for carrying about. Can be set down anywhere.

Charts used are but 4-inches in diameter, yet have wide, open scale graduations — easy to read, and very convenient to handle or file. Temperature records are continuous over period of 72 hours.

Complete information, prices, etc., in Bulletin No. 377. Write for a copy.

The Bristol Company, Waterbury, Conn.

Campbell Completes Special Mortuary Cabinet Installation in Milwaukee



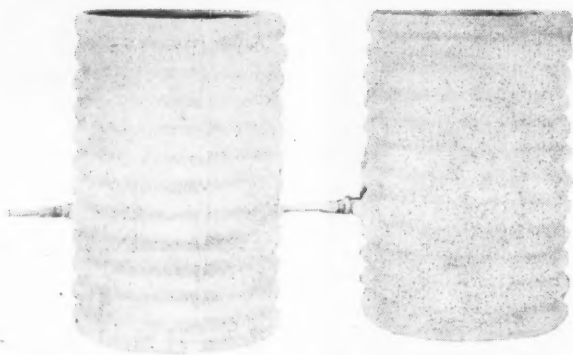
AN interesting installation of mortuary refrigerators has been made in the new Safety Building in Milwaukee, Wis., by the Campbell Refrigerator Co. In this job no pans or baffles were used. The side wall refrigerating system cools the low mortuary cabinets.

Flexibility in the operation of this installation has been provided through the arrangement of the sections in this room. Each section containing two cadavers is refrigerated as a separate unit, making it possible to adapt the refrigeration to the needs.

BOGART COMPLETES BIG CAFETERIA JOB

Toledo, Ohio—The H. G. Bogart Co., General Electric distributors, have just made a very interesting commercial installation in the cafeteria of the National Carbon Co., Fostoria, O. This refrigerator is a special 120 cu. ft. model, refrigerated by two DR-15 units. This cabinet is built into a wall between the cafeteria and the kitchen and is so constructed that edibles may be taken from the cabinet either from the kitchen or the dining room.

Cylinder Type Evaporator for Ice Cream Cabinets and Soda Fountains



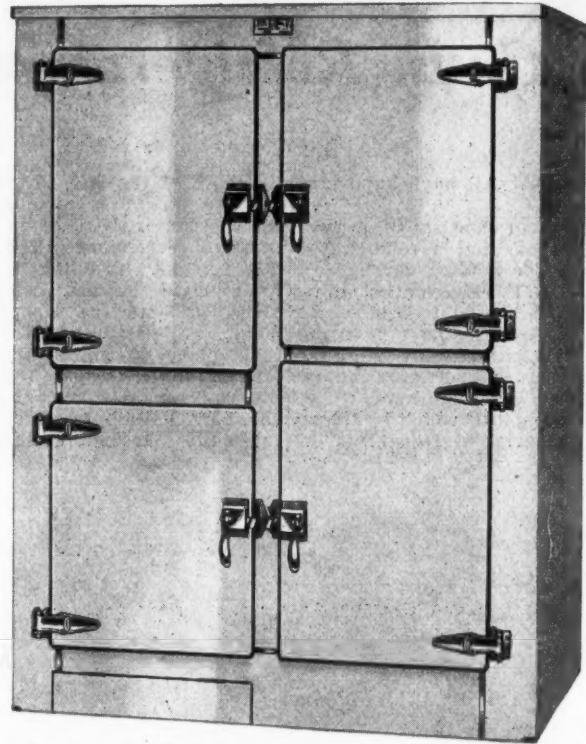
CYLINDER type evaporators have been developed by the Icelect Corporation of Omaha, Nebr. The two evaporators pictured here are hooked in series for refrigerating an ice cream cabinet or soda fountain.

About a pint of refrigerant is contained in the small space between the

walls of the cylinders. Two cylinders are fitted together, one going inside the other, and the ends are welded.

Ice cream containers fit inside the cylinders, to give a large cooling area. These evaporators can be hooked in multiples so that as one is filled the refrigerant flows to the next one.

McCray



All-porcelain McCray cabinet for users of commercial refrigeration.

Frigidaire

FRIGIDAIRE this year has incorporated the Hydrator, a compartment for keeping moist foods, in all its domestic models. The Hydrator is of all-porcelain construction and fits in the food chamber just below the chilling unit. It is adaptable for fruits and vegetables and other foods containing large amounts of moisture.

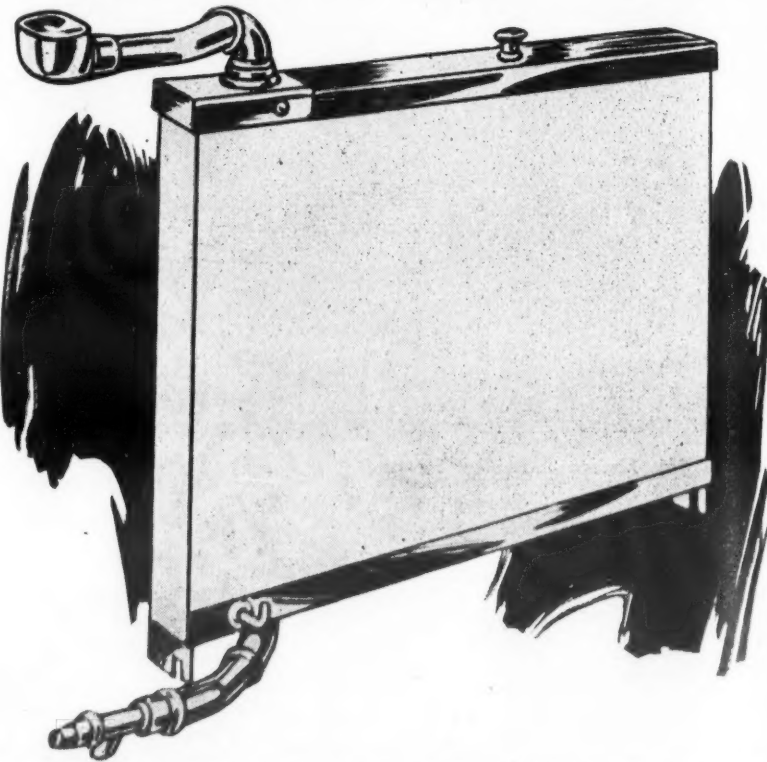
Three large commercial boxes have also been added to the Frigidaire line. These models have capacities of 35, 60, and 100 cubic feet, respectively. They are finished in porcelain inside and outside. A 350 lb. compressor has also been added to the line.

Seeger

SEEGER Refrigerator Co., St. Paul, Minn., is including a large number of cabinets in its domestic line this year. Models with food capacities ranging from 4.45 to 40.75 cubic feet are being offered. Eleven models of the sixteen in the line are of all-porcelain construction.

Refinements which will appeal to the housewife have been incorporated in the De Luxe line. These models have a tank for cooling drinking water, and a small light at the top of the cabinet illuminates the interior. A Chilly in the De Luxe cabinets can be used for chilling certain foods and a bin at the bottom provides convenient storage.

Cool Drinks for Copeland Users



WATER Chiller which is standard equipment on all models in the Copeland De Luxe line. This tank replaces the baffle which ordinarily separates the cooling unit from the food chamber. It has porcelain interior and exterior and will hold about two gallons of water which can be chilled to a temperature about twenty degrees lower in approximately three hours' time. This chiller can be used for beverages as it is easily removed from the cabinet for cleaning. A movable arm permits filling from a pitcher, while the faucet is affixed to an arm in the similar manner. Both close with the door, preventing damage should it be closed while they are in an operating position.

Canada's Own FRIG-O-MATIC

New Low Prices Automatic Freezing Control
Most Modern Features Silent Spring-Mounted Units
Porcelain Lined Cabinets Chromium-Plated Ice Trays

Complete Made-in-Canada Equipment

With a purely Canadian company manufacturing complete Refrigeration systems and equipment at Brantford, Ontario, Canadian dealers are now assured of the utmost in local co-operation. All Self-contained units are shipped from the Factory complete and ready for use—simply open the valves and plug in to a socket. No assembly, charging or installation. Your gross profit is your net profit. Now you can sell Refrigeration "over the Counter". For the larger, remote, or Apartment House installations we manufacture the complete equipment and our Travelling Engineers are at your service. This year will see record developments in the domestic field—especially in Canada. Satisfy this Canadian demand with a Canadian refrigerator and incidentally make extra profits, easier, and with the co-operation and security of a Factory at your elbow.

FROM THE SMALLEST HOUSEHOLD CABINET TO THE LARGEST APARTMENT HOUSE, FRIG-O-MATIC IS PROVING THE BEST VALUE IN ELECTRIC REFRIGERATION

FRIG-O-MATIC
LIMITED

Head Office and Factory:
BRANTFORD, ONTARIO

Sales Subsidiary: COAL-O-MATIC LIMITED
Montreal - Toronto

Write now for illustrations
and information

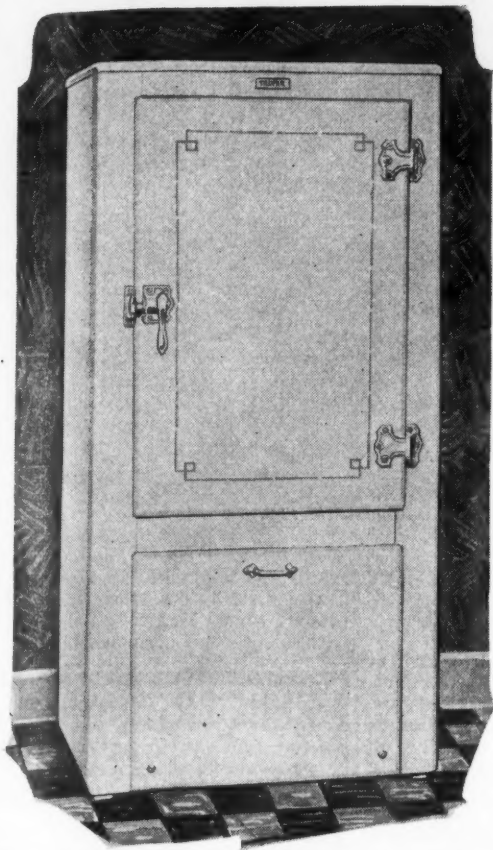
The leading refrigerator manufacturers are using our Double Seal and special gaskets made for their requirements. We will be glad to figure on your problem.

Specialists in refrigeration gasket.



The D.W. Bosley Company
906 Marquette Bldg.
Chicago, Ill.

Trupar "Mayflower" Model



Mayflower Model with four and a half cubic capacity designed for the small home.

TOPPING the new line of electric refrigerators made by the Trupar Manufacturing Co. of Dayton, Ohio, is the new "Mayflower" model, which has been designed for installation in the smaller type of homes. This model, with a height slightly over four and a half feet, has four and a half cubic feet of storage space and seven and a quarter square feet of shelf area. It can be had in all porcelain construction, or lacquer exterior and porcelain interior, or lacquer exterior and enamel interior. On the door a soft grey border adds attractiveness to this model.

The "Six" and "Seven" domestic cabinet models have six and seven cubic feet of storage space, respectively. These models have chrome-plated hardware.

This year Trupar is shipping models ready for installation. Condensing unit is installed and tested at the factory, and the refrigerator need only to be connected to the socket in the home for refrigeration.

Five sizes of chilling units are used in the various models of electric refrigerators in the line manufactured by this company. They are made of semi-steel castings, hot galvanized inside and outside.

Temperature selector which the Penn Electric Company will introduce to the field in a short time. This instrument will provide quick freezing control and thermal overload protection. It is small and compact and has a Bakelite case.



Penn

Protectostats

For the control of pressure two models of Protectostats are available. No. 12 is for use with sulphur dioxide machines and has a 1/4" water valve. No. 52 is for ammonia machines and water valve is 3/8" in size.

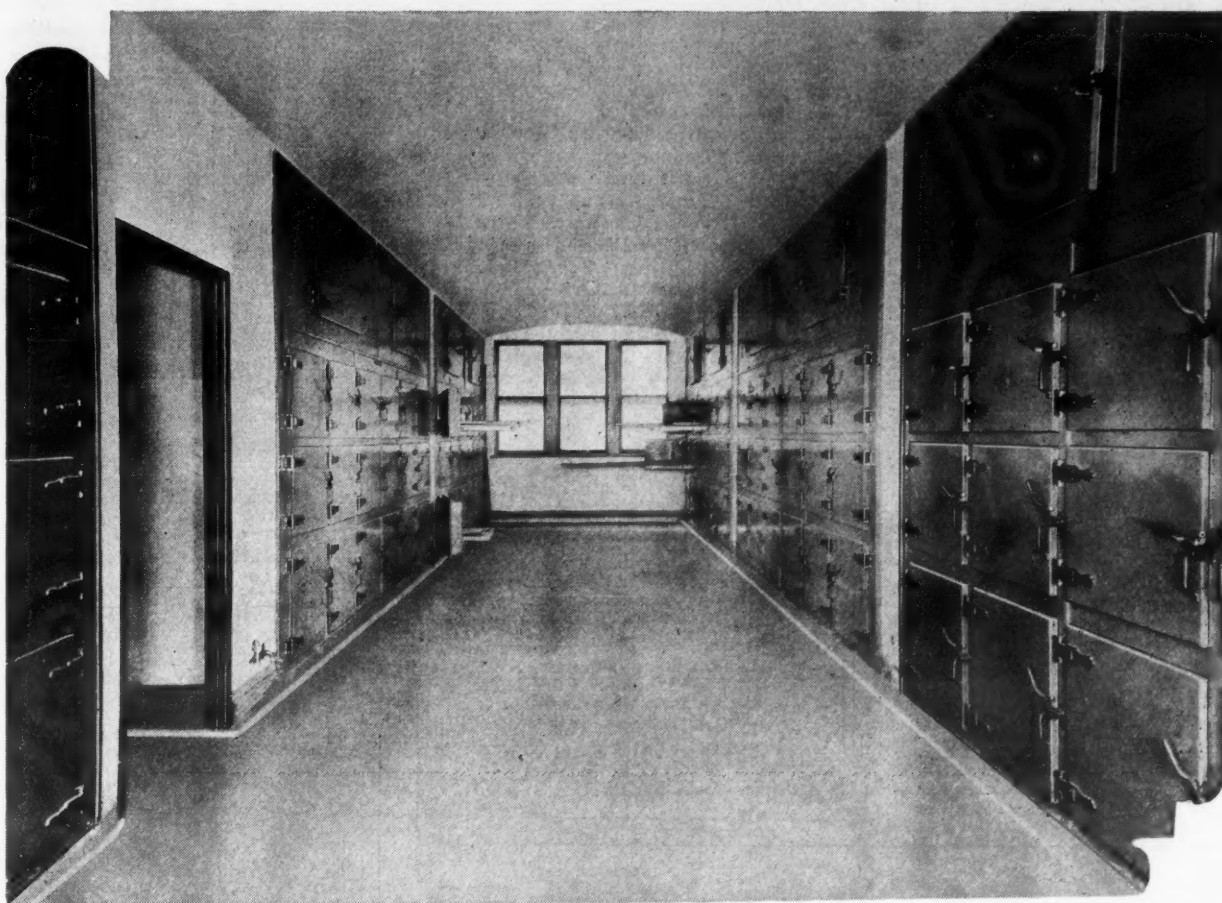
For direct control these instruments are adaptable to condensing units equipped with 1 1/2 H. P. motors of the single-phase type. For pilot control they are designed for 1 1/2 H. P. motors 2 or 3 phase.

Pressure cutout switch on both models is adjustable to open circuit at desired pressure. Housing is of aluminum—weight 5 pounds complete.

We Manufacture a Complete Line of Refrigeration Controls.

Safety Regulator Company
2840 1/2 GUIRADO ST., LOS ANGELES, CALIF.

Cook County Hospital Uses Dry-Kold Equipment in Morgue



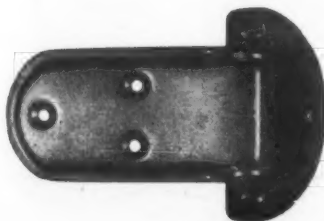
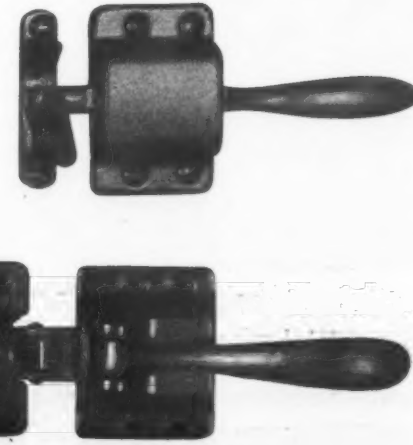
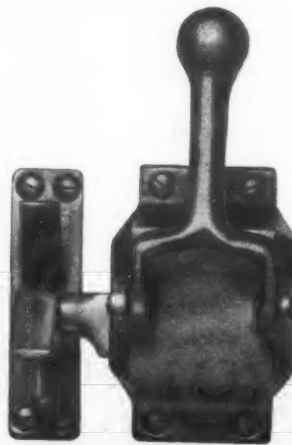
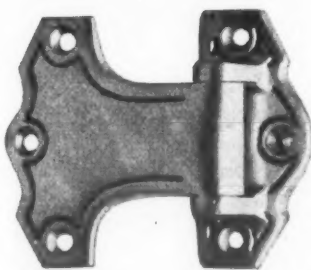
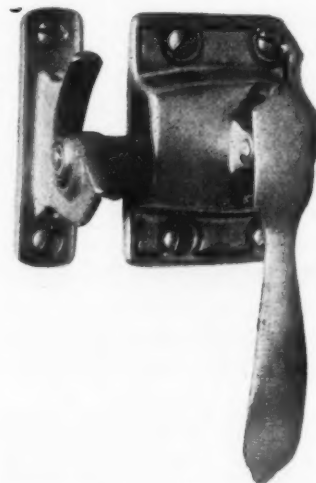
Large mortuary job placed by the "Dry-Kold" Refrigerator Company, of Niles, Mich.

HARDWARE FOR YOUR NEW REFRIGERATORS

Every Size and Type

Accurate Sturdy
Positive

Reversible Automatic
Single Automatic
Non-Automatic
Automatic Levers
Non-Automatic Levers
With or Without Rollers
With Springs or Springless



GRAND RAPIDS BRASS CO.

GRAND RAPIDS, MICHIGAN

SPECIAL ATTENTION GIVEN INQUIRIES FROM RATED MANUFACTURERS

For Automatic Refrigeration Manufacturers

Whatever you require in copper, brass, bronze, or copper alloys, we are prepared to furnish on contract either parts or sub-assemblies ready for installation in your unit. Boilers, compression nuts, filters, float-balls, condensers, special nipples, bellows and thermostats, and a large variety of other standard parts. Let us quote on your requirements.

BRIDGEPORT BRASS CO.

General Offices and Plant
Bridgeport, Conn.

Offices in Principal Cities

"Bridgeport"
TRADE MARK

FRIGIDAIRE MEN WIN \$10,100 IN GOLD

Kansas City, Mo.—More than 900 Frigidaire salesmen from Missouri, Kansas, Oklahoma, Nebraska and Colorado attended the twelfth of a series of thirteen sales meetings held by the Frigidaire Company in the United States, February 15. Sales conferences and business meetings occupied salesmen and distributors during the day, a dinner in the Ararat Temple and entertainment furnished by the Frigidaire Melody Girls capping the day.

At the dinner Saturday night Mr. Harlan outlined the Frigidaire A B C's of sales co-operation. S. A. Long, of Wichita, responded to Mr. Harlan's address with a brief talk on field workers' appreciation for the extensive sales helps extended by the company. Part of the day session was taken up with the awarding of \$10,100 in gold prizes to the leading salesmen of this region.

KING ZEERO SAFETY COOLING UNITS EVAPORATORS

for Single or Multiple, Methyl or Sulphur
Over 3,000 in operation in Chicago, ranging from 1 to 106 per compressor

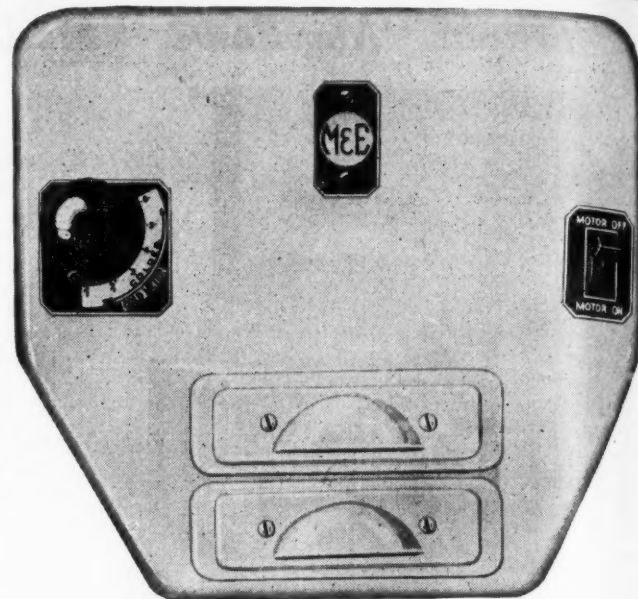
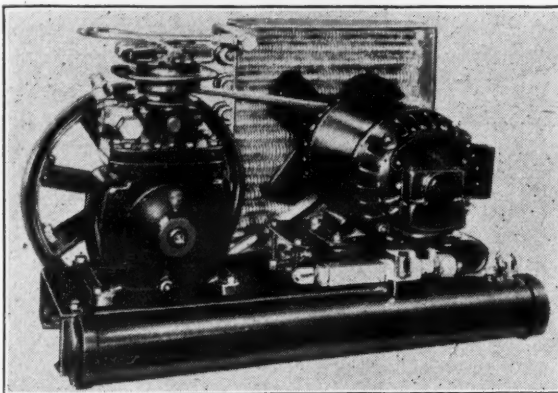
BRINE

CIRCULATION UNITS, All Steel
Tested 125 lbs. air pressure

MORRISON MFG. CO.
2315 Wolfram St., CHICAGO, ILL.

Merchant & Evans

Visible "Cold Meter" and a "Safety Thermo and Defrosting control." (Below) Model D-100 compressor with 100 lbs. ice melting capacity.



GENERAL MANAGER

Jefferson, Wis.—W. G. Von Meyer, sales manager of the Valerius Corporation, manufacturers of soda fountains, luncheonettes and soda-sundae cabinets, has been promoted to the position of



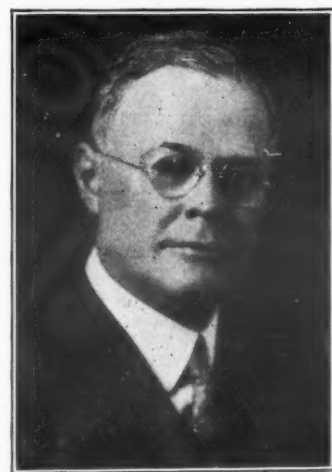
general manager of the company, according to an announcement by T. L. Valerius, president.

Mr. Von Meyer is well known throughout the refrigeration industry, and for a number of years was with Nizer-Kelvinator in Detroit.

COLUMBUS KELVINATOR DISTRIBUTOR NAMED

Columbus, Ohio—Kelvinator-Columbus, Inc., 114-116 N. Third St., has been appointed distributor for 21 counties in central Ohio. Roy L. Wildermuth, president and general manager of the new concern, has resided here 35 years.

Mr. Wildermuth resigned from the positions of president and general man-



ager of the Lorado Coal Mining Co., and general manager of the Lorain Coal and Dock Co., Jan. 13, 1930, after 22 years with these concerns.

A. L. Schluttig, who for some time has been sales manager of the Oakland Motor Car Company's retail business in Detroit, has been appointed sales manager of Kelvinator-Columbus Co.

PLAN TO DEVELOP CARBON DIOXIDE WELLS

Washington, D. C.—The Department of Interior in a statement issued February 22, envisioned the commercial possibilities of dry-ice from carbon dioxide wells lying beneath the dry stretches of eastern Utah and western Colorado.

Announcement was made of a ruling by Secretary Ray Lyman Wilbur that desert prospectors for oil and gas have a right to commercial profits accruing from the use of carbon dioxide, and that the department would accept a nominal royalty of 2 cents a 1,000 cubic feet of gas the first two years of operation.

Government geologists explained that dry-ice manufactured from this gas has a refrigerating efficiency twice that of water ice. It transforms more slowly than water ice, they said, and therefore is superior to it for long shipments.

Owing to its lower temperatures, it is more satisfactory for shipments such as fish, fresh meats and ice cream, which are best preserved when frozen.

It was said to be less satisfactory for fruits and vegetables, which are damaged by freezing, but that if its frigidity could be lessened it might be of great service as a general refrigerant.

The problem in using natural carbon dioxide produced from wells rests on the ability to convert it to dry-ice for man and transport it to market. In some of the western wells the carbon dioxide occurs with inflammable gas.

This is believed to offer possibilities, the geologists said, as the two can be separated and one used to produce the power to compress the other.

FRANK W. GRAY TAKES NEW POSITION

Los Angeles, Calif.—Frank W. Gray, western sales manager for the Absopure Corp., has resigned to accept a position with the Western Continental Utilities, Inc., of Los Angeles.

Mr. Gray's new work will deal with the organization and promotion of customer ownership of the securities of the company through the employee organizations of the various subsidiaries of the company.

BYRD'S CARPENTER REPORTS

COMMANDER RICHARD BYRD and members of the Antarctic Expedition are now en route to the States on the "City of New York," after spending fourteen months in the territory now known as "Little America." The Dry-Zero Corporation of Chicago, which prepared the insulation used in the homes of the explorers, has received the following telegram from the Byrd Antarctic Expedition: "Expedition carpenter reports Dry-Zero in excellent condition and has proven effective insulation for Antarctic houses."

ROOKIE SALESMAN MAKES GOOD START

Detroit, Mich.—Fourteen hours after D. J. Edwards had completed his three-day training course, he closed his second order for a General Electric refrig-

erator. Officials of the Electric Utility Corp., distributors, were somewhat surprised when Mr. Edwards walked in with his second signed order.

ELECTRIC MOTOR SPECIALISTS

Air — Compressors — Purchasing and Selling Quantities
H. LIPPMAN, 101 Walker St., N.Y.C.

The Imitation Food Products Co.

(Branch of The Artistic Production Co.)

107 Lawrence Street
Brooklyn, N. Y.

Ask for our catalog of January 1, 1930. Direct sales only. "Indispensable with refrigerator display."

ATTENTION

Service Managers of
Cabinet Service Departments

By having J. Moss & Sons replace your monel tops, panels, collar rings, revamp old lids like new, and other worn or broken parts, your present ice cream cabinet can be reconditioned to look and wear like new.

We give you the highest quality obtainable and our prices will save at least 20 per cent on replacement expenditures. And you can depend on our prompt service. Write or wire for price lists and additional information.

Also Manufacturing Sheet Metal Parts and Stampings

J. Moss & Sons
630 Hudson St. New York City

"SILVER-BRAZE" For Security

Protect the good name of your equipment by the use of

"HANDY" Silver Solders

in brazing all connections that must be permanently

Gas-Tight and Corrosion-Resisting

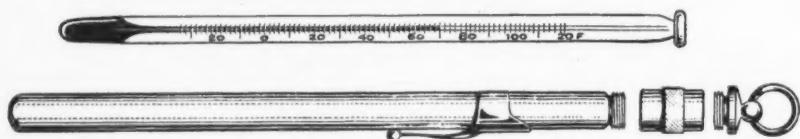
We are now serving many makers of Electrical Refrigerators—Domestic and Industrial—to their marked satisfaction.

Special formulas of "Handy" Silver Solders have been developed for this exacting service. Their use effects an ultimate economy, all costs counted.

Your engineers are invited to call upon or to correspond with us with reference to the important matter of safeguarding your equipment against possible trouble before, or after, its installation.

Send for Bulletin No. 3ER and other up-to-date engineering data on welding, brazing and soldering with "Handy" Silver Solder.

Handy & Harman
57 William St. New York City



A clear view easy reading thermometer—designed to give the utmost in instrument accuracy and dependability. Easily interchangeable refill. Nickel-plated brass case, not affected by brine.

We invite manufacturers, distributors of Electrical Refrigeration Equipment, and all interested in test thermometers for service men and salesmen to get in touch with us.

Carroll Glass Instrument Co.
PHILADELPHIA

Every Cylinder Analyzed **SULPHUR DIOXIDE**
Absolutely Pure for DIRECT CHARGING
Bone Dry
Ton Drums
Tank Cars
Also
ANSUL CHEMICAL COMPANY
MARINETTE WISCONSIN

LEAK-PROOF METAL GASKETS



GASKETS—that hold regardless of what the refrigerant may be.

GASKETS—that do not shed bits of material that clog up important working parts of a machine.

GASKETS—that are absolutely reliable.

Should merit your consideration
Send your blue prints or sketches for quotations

CHICAGO-WILCOX MFG. CO.
7701 Avalon Ave. CHICAGO

Fulco REFRIGERATOR COVERS

"FULCO" covers are used by those dealers who realize the importance of making deliveries in perfect condition—without scratches or broken enamel. For they know that complaints mean dissatisfied customers and loss of business.

"FULCO" covers are a real service feature that helps sales and holds trade.

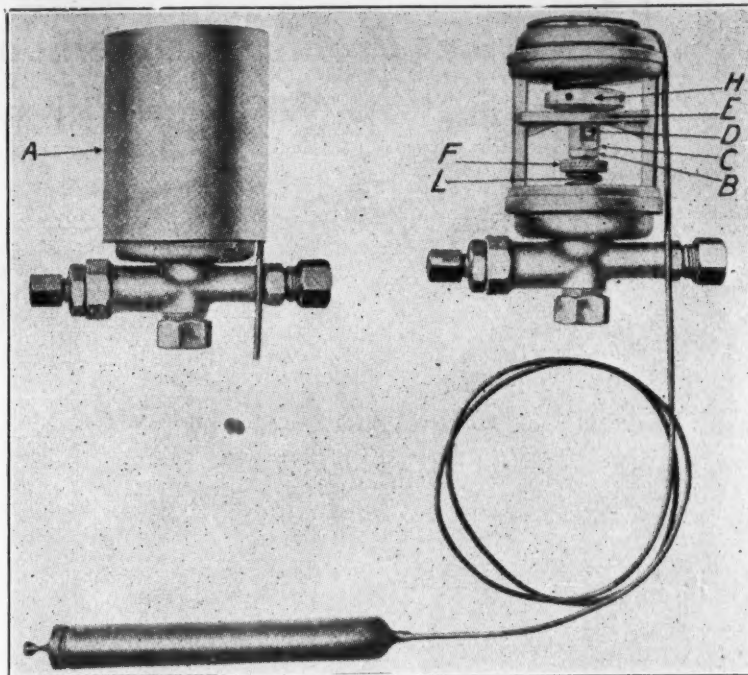
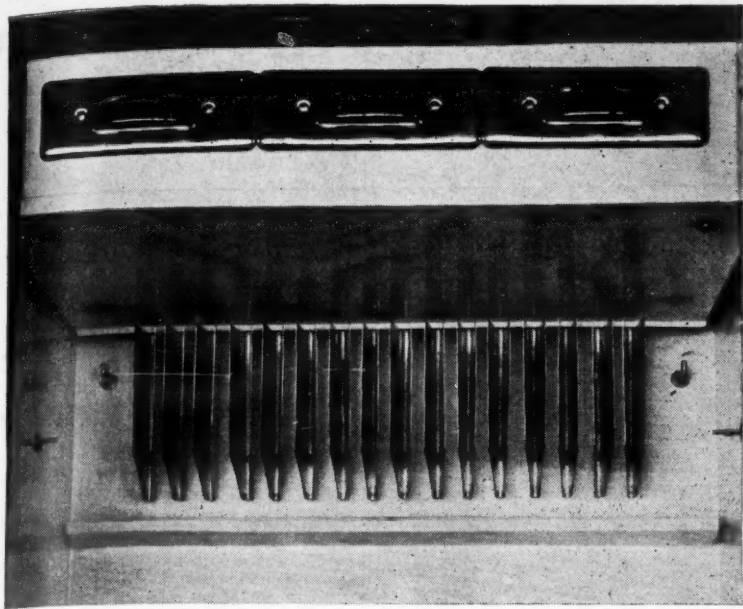
Substantially constructed, heavily padded, box-shaped, providing perfect protection.

Give us the dimensions of your refrigerators, and let us quote special prices on your individual needs. Write our nearest house.

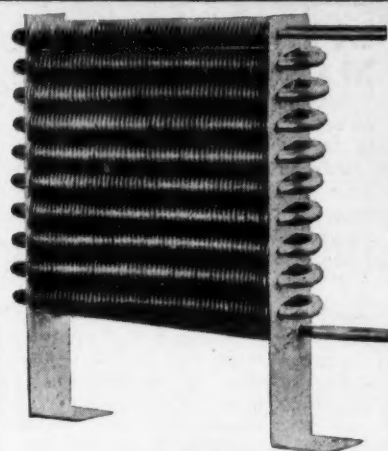
Fulton Bag & Cotton Mills

Manufacturers Since 1870
ATLANTA · NEW ORLEANS · DALLAS · ST. LOUIS
MINNEAPOLIS · BROOKLYN · KAN. CITY · KAN.

EXTRA DRY ESOTOO
THE PUREST
SULPHUR DIOXIDE
Analysis Guaranteed
WE HAVE AN AGENT WITH OUR PRODUCT IN STOCK
NEAR YOU — WIRE US WHERE WE CAN SERVE YOU
VIRGINIA-SMELTING CO. West Norfolk Va
P. A. EUSTIS, Sec. - 131 State St. BOSTON - 2 Rector St. NEW YORK

New Welsbach Equipment

Welsbach Thermax Valve, which combines a temperature responsive element with a pressure control expansion valve.



**Specify
ROME CONDENSERS**

Made of heavy gauge de-oxidized seamless copper tube. One piece construction. Designs for all requirements.

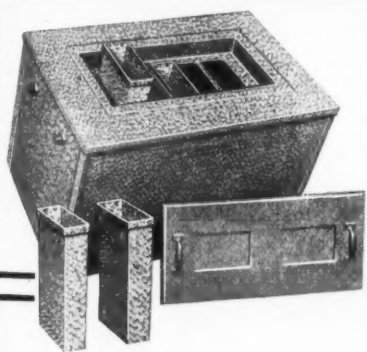
Rome-Turney Radiator Co.
ROME, N. Y.

WELSBACH Hydrelectric household cabinets are being offered in four sizes. The six cubic foot model was announced in the February 12 issue of the News. Three other cabinets in this line have approximately net capacities of seven, nine and twelve cubic feet.

The photograph on this page shows a close view of the fin coil in the food storage chamber, and the isolated compartment for faster freezing of ice cubes. The section for ice cubes is cut off from the rest of the cabinet by insulation, allowing the cubes to be frozen without affecting the temperature of the food compartment.

The shallow finned coil takes care of cooling the food in the refrigerator. It is so regulated that it does not reach low temperatures, and as a result no frost forms on it and foods in the chamber are permitted to retain their moisture.

In addition to the new developments in the domestic line, the Welsbach Company of Gloucester City, N. J., has developed a Thermax valve, which combines a pressure control expansion valve with a temperature responsive element. This device is designed to maintain harmony between condensing unit capacity and the evaporator coil capacity in connection with the Superfreezers, which Welsbach uses in market coolers and boxes and other large refrigerated cabinets.



**Another Advantage
in the THESCO
Franchise**

DISTRIBUTORS have been quick to recognize the urgent need for small, compact freezing units which can be readily and profitably sold with a minimum of installation service. THESCO Can Ice Freezing Units adapted to all forms of mechanical and electrical refrigeration, have been developed especially to fulfill this need.

Pictured above is a THESCO No. 4000 Can Ice Unit arranged for sulphur dioxide, methyl chloride, ethyl chloride, or ammonia refrigerants, and with tinned copper grid dividers for making ice cubes. This unit has proven highly satisfactory in dairies, small hotels, clubs, colleges, hospitals, institutions, cafeterias, sandwich shops, retail ice cream plants and commissaries. It is an effective freezer for game, poultry, fish, sweetbreads, and all identifiable hard chilled fruit and meat products.

**Some Territory
Still Open—**

Distributors: Write for complete proposition, discounts, and profusely illustrated catalogs describing THESCO Refrigerators, Refrigerator Display Counters and other refrigeration and store equipment.



The C. Schmidt Co.
Established 1870
John and Livingston Ave.
CINCINNATI, OHIO

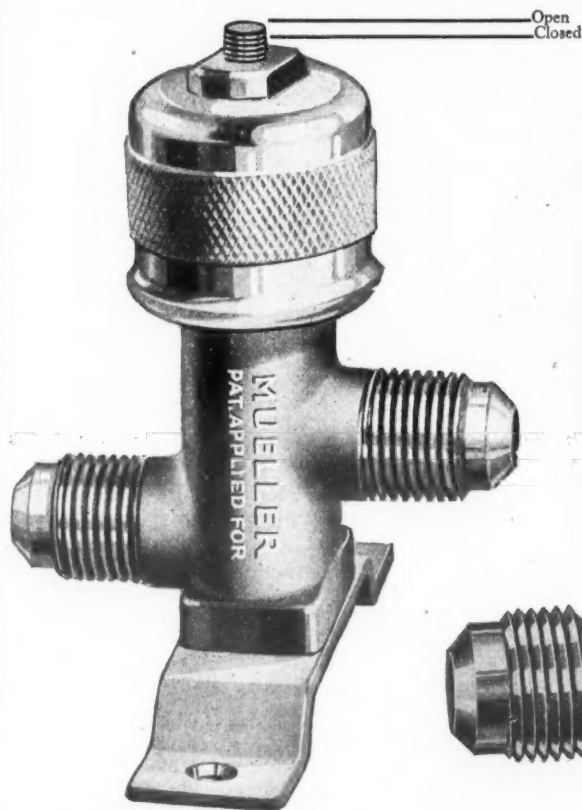
Can You Afford to Let Your Business Escape Through Inferior Valves and Fittings?

YOU CANNOT OFFER your ultimate consumer, who holds the future of your business in the hollow of his hand, anything short of 100% protection and service.

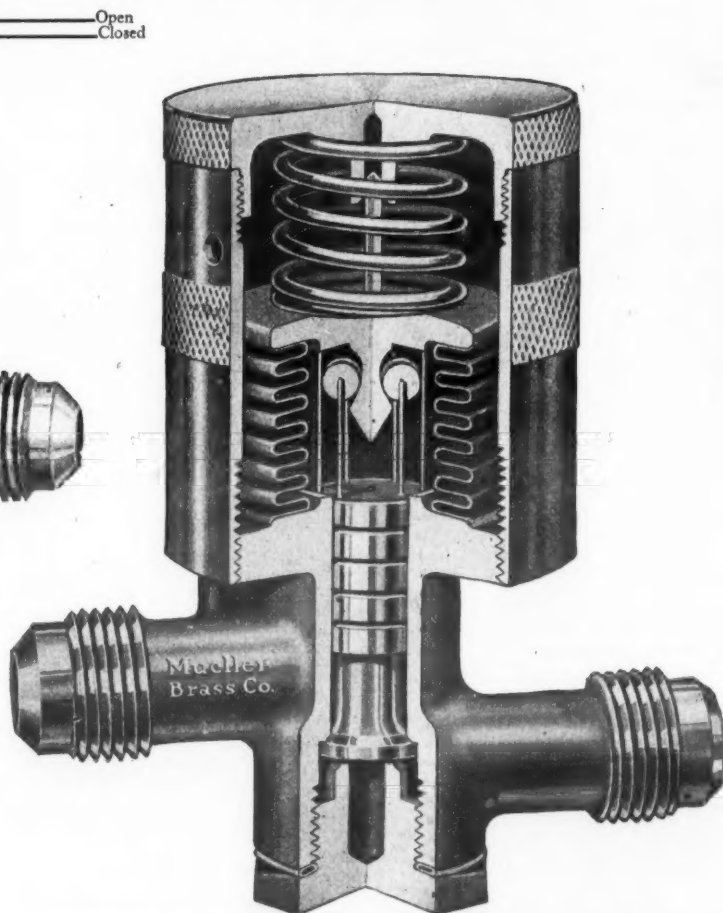
THERE CAN BE NOTHING "just as good" as Mueller brass forgings, because only the tremendous pressure exerted in their production can produce the perfect density that defies seepage.

THE CONSUMER is no longer willing to accept advice from even the most reliable source without proof. He is buying products offering the utmost in service, satisfaction and protection, and he is as quick to recognize quality as he is to spot weaknesses.

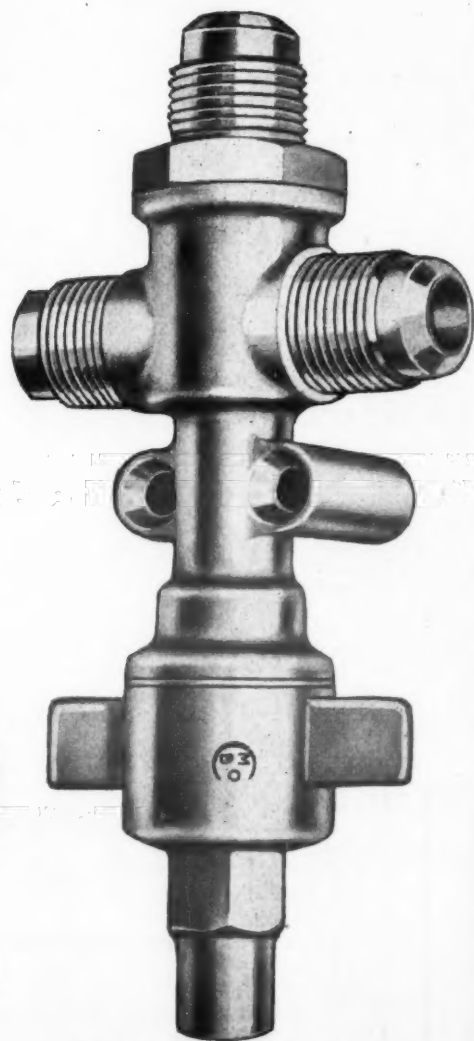
MUELLER FORGED BRASS refrigerator valves and fittings provide you with the one safe answer to the question every buyer today is sure to ask. They enable you to offer positive protection plus greater strength, longer service and higher operating efficiency.



Mueller Standard Packless Shut-off Valves.



A-11095—Mueller Two-Temperature Control Snap Valve.



Mueller Standard Valves Adapted to Your Requirements.

[SPECIFY OPERATING PRESSURE WHEN ORDERING]
[SEND US SAMPLES OR BLUE PRINTS FOR QUOTATIONS]

Mueller Brass Co.
Valves and
Fittings are
approved by
the Underwriters'
Laboratories of
Chicago.

Mueller Brass Co.

PORT HURON, MICHIGAN

THREE GENERATIONS OF BRASS MAKING

We manufacture a complete line of valves and fittings and can supply your every requirement.